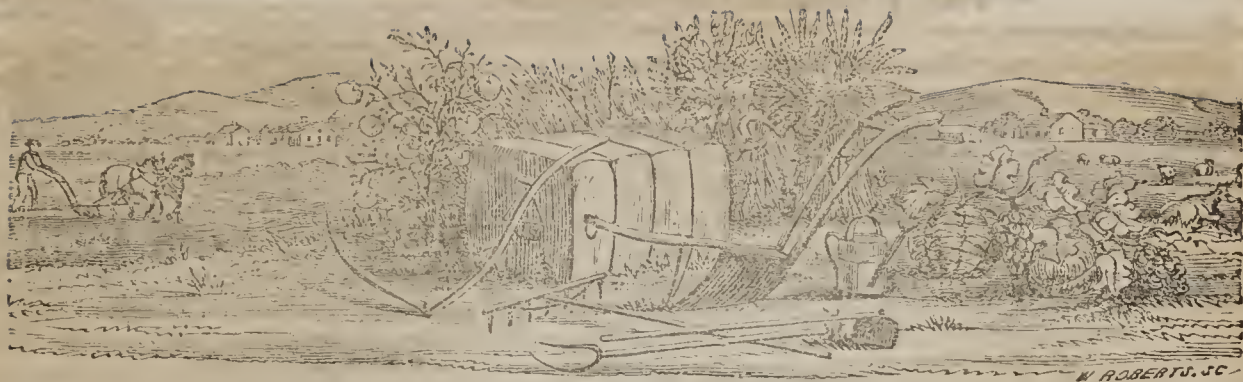


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THE FARMER AND PLANTER.

Devoted to Agriculture, Horticulture, Domestic and Rural Economy.

Vol. VI.

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BY GEORGE SEABORN,

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Fashion versus Symmetry.

The most common cause of a high shoulder is to be found in the admirable practice of undressing girl's necks as low as the hanging of their clothes will permit. Instead of the shoulder-straps of their dress being, as they should be, fairly above the shoulder they often—indeed most commonly—either only skirt the extreme end, and rest on the rounded upper part of the deltoid muscles, or actually far down on the arms; in consequence of which the dress, having little or no suspension on the shoulder, is constantly dropping, and the girl, to save clothes dropping, down, or, at least, to keep them in place, is continually hitching up their shoulder from which the shoulder-strap most easily slips, and thus the elevating muscles becoming stronger on that side, pull the shoulder permanently up, and produce a very ugly appearance. But the mischief does not stop here; for

though there really be no disease of the spine yet this constant hitching up of the shoulder causes the head and neck to be thrown to the other side, whilst the chest is thrown out to the same side, and thus a lateral curvature of the spine is produced, and a girl's figure is spoiled; for the simple purpose of uncovering her neck and shoulders as far as possible, which, as well for decency as for the preservation of the child's health, ought to be covered. Many parents have thus been the cause of their daughters' distortion, if not more serious consequences; and, therefore in growing girls who have least disposition to slip their shoulder out of their dress most especial care should be taken to prevent the possibility of keeping up this habit, by having the dress made so high that it cannot slip down, and then, the sensation of the slipping being lost, the child no longer continues to hitch up her shoulder, and by a little attention to her proper carriage, the mischief, if not of long standing may be got rid of.

*Agricultural Division of the Patent Office.—Plant lice on Grape Vines:—*We make an extract from a paper by Mr. Townsend Glover on the plant louse, to be published in the forthcoming agricultural report:—The plant louse (*Aphis*) is very destructive to young shoots and leaves of grape vines, as they suck out the sap by means of a piercer or trunk, and thus enfeeble the system of the plant, the natural history of these insects is similar to that of the cotton louse. Their natural enemies are also the same as they are destroyed by the lady bird, the lace-wing fly, and syrphus. I must, however, remark that the minute ichneumon fly which destroys the aphid on grape vines, differs essentially from that of the cotton louse, although its general form and habits are the same.

When the vines are in small gardens the

best remedy to destroy this pest would be to syringe the plants thoroughly, both on the upper and lower sides of the foliage, with a solution of whale oil soap. Dusting the leaves with lime has also been recommended, and in a green house these lice can be destroyed by a thorough fumigation with the smoke of tobacco.

Egg Plants for Winter use.—This most delicious vegetable may be preserved with all its peculiar flavor, fresh and genuine, with very little trouble more than it takes to prepare it for the table fresh from the bushes. Peel off the blue skin, and slice them as thin as a sharp knife will cut them; spread them in tin pans, and dry in the sun until they are perfectly brittle; pack them away in paper bags, and when wanted for use, drop them into cold water and boil; when swelled out to their original size turn off the water, dip them in a batter made of flour, sweet milk, eggs, pepper, salt, &c. and fry in butter, and you will scarcely realize that winter is here.—*Soil of the South.*

To Make a Corn Cake Worth Eating.—Take the whites of eight eggs; one-fourth pound each of corn starch, flour and butter; half a pound of sugar; one teaspoonful of cream of tartar; half teaspoonful of soda. Flavor with almond, or to suit the taste.

Proceedings of the Pendleton Farmers Society.

ASHTABULA, Oct., 18th, 1855.

COL. CALHOUN—*Dear Sir:*—On motion of Dr. Adger, it was resolved, "That the thanks of the Society be presented to Col. Calhoun for his very able, eloquent, beautiful and instructive Address this day delivered, and that he be requested to furnish to our Secretary, a copy of it for publication in the *Farmer and Planter*, and *Charleston Mercury*."

I will be glad, at your earliest convenience, to receive your manuscript that I may forward it to the Editor of the *Mercury*.

I am, very truly, yours,

J. T. LATTA, Sec'y.

FORT HILL, Oct. 23rd, 1855.

J. T. LATTA, Esq.—*Dear Sir:*—Your note embracing the resolution of the "Pendleton Farmers' Society," requesting my Address for publication, has been received. When the Address was written, I had not the remotest idea it would be printed, and nothing would induce me now to consent but the kind opinion and wishes of friends and neighbors. The manuscript I have handed to the Editor of the "*Farmer and Planter*." I have not prepared, as requested, a copy for the "*Charleston Mercury*," because it is a political paper, and it would be too great a tax upon its columns to inflict a lengthy agricultural address, and much of it devoted to local matters.

Yours, truly,

ANDREW P. CALHOUN.

ADDRESS,

Delivered Before the Pendleton Farmers' Society, Oct. 13th, 1855,

BY COL. ANDREW P. CALHOUN.

Many years ago this Society was established with the noble hope that great good might be conferred, not only upon this District, where most of its honored members lived, but upon the cause of agriculture at large.

The benevolent object was directly to retain the fertility of the beautiful valleys, plains and slopes of this picturesque region, and indirectly by concert of action and interchange of experience, to diffuse a zeal for improvement that might retain the labor and capital of the restless crowd that was rushing from an impoverished and stricken country, to the fertile soil of the West. The hope proved delusive, and of all the projects suggested, it is curious to note that none have succeeded, and that we, at this moment, are making anxious enquiry whether the very experiments then proposed are practicable. Look at the blue book of 1815, and on the subject of grasses, how anxious were the practical men of those days to test every variety, and find some suitable to this locality. Where are the results? Again, in every department we find we are but repeating what was then done, and yet, after the lapse of nearly forty years, the eye wanders over agricultural desolation. Should this be discouraging? We answer in the negative. For our chemical knowledge, both in regard to the soil which is to be cultivated and to the plants we wish to grow, renders the process of restoration much more easy and simple than it was comparatively but a few years ago, when the theoretical farmer—but really writer—proverbial for his wretched system of practical farming, brought merited prejudices against all agricultural disquisitions.

But science is rapidly conquering all prejudice, and with its silent army of votaries is daily promulgating from the recesses of the chemical laboratory discoveries, more wonderful in results than the discovery of the philosopher's stone would have been by the alchemist of old.

This great renovator of nature that analyzes the air, the soil, the water, and initiates us into the sublime and yet simple agencies by which the wonderful ends of nature are attained, has revolutionized the principles of agriculture.

Miracles are yet destined to be performed by its potent touch. Already the great western tide brings back at its ebb many who floated off to a more promised land; who, perhaps, found genial climates, rich lands, nature bountiful in all respects; yet "man's inhumanity to man"—the drying up of the great social fount, the selfishness, the pride, pomp and vanity of sudden wealth, made the heart yearn for those deserted homes, where, if mother earth does dole out a mere pittance, the crop of human virtues is luxuriant and perennial. Take for example, the region we are in; once one of the richest, now one of the poorest; can nothing practical be done to restore, even to more than its original fertility, its lacerated and exhausted soil: thereby giving the additional inducement

of fertility of soil for its occupants to remain and outside capital to invest, not only for the beauty of scenery and salubrity of climate, but profit from agriculture. We firmly believe, with energy and the application of those principles that are within the reach of all who seek them, a transformation as rapid as it will be profitable, will mark the change. Not by clinging to old habits and prejudices. But to change from the beaten tract that now exposes to view nought but ruin and exhaustion. No individual or people who live in the midst of such delapidation and indifference to all the appearances of life. So far as preservation of soil, neatness of homestead, and all those things that address the eye pleasantly, which cost little but energy and care to acquire, can either enjoy existence as it should be, or feel that attachment to home which comfort and neatness alone can inspire. The energetic seek distant lands—those who remain constantly speak of doing so, but shrink aghast at the idea, and rather "bear the ills they have, than fly to others they know not of."

Thus, between active life and capital constantly deserting, and dissatisfaction and want of interest in those who remain, a country that might be an Eden, repels the vision with its sedge fields, rotten fences, gullied hill-sides, and undrained flats. How can this be changed? We answer, more depends upon a people than upon the soil or country they inhabit. If we look into the records of the past, we invariably find a country developed just in proportion as its industry—compulsory it may be—is manifested. If we follow Herodotus five hundred years before the christian era into Egypt, how charmed the senses are with his simple recital of the gorgeous spectacle in that renowned land, whose people worshipped Osiris and Isis who first taught them the art of cultivation.—We see the waters of the mysterious Nile in artificial channels, winding their tortuous course through sandy plains, and depositing its Lybian treasure upon the arid surface, and lo! the fig, the pomegranate, the palm and orange, the full array of tropical and Eastern luxuriance springs from its bosom, and thus enriched its people, under, it is true, the inexorable will of a Master cover their country with the evidence of their skill. For it has been well remarked, "where agriculture succeeds, the arts prosper and thrive, and when the earth is badly cultivated they are destroyed." Thus, we see the Egyptians take the shapeless rock, and with Herculean labor and skill, masses are shapen and removed, which modern art could not stir from its base. Then again into the "vocal stone," Memnon, in palaces, statuary, columns, so grand, even in their ruin, that the French army, when marching over the sandy plains, suddenly emerged in full view of Thebes, still magnificent in her ruins, after the lapse of 30 centuries, rigid in discipline as it was, burst through all restraint in an irrepressible shout of admiration.

The artificial and immense lake, Moeris, with the labyrinth on its borders, three thousand chambers filled with sculpture and hieroglyphic. The pyramids yet towering their peaks in commemoration of their ancient origin, all at-

test what labor can affect—misdirected we may say—but to show how often what we, in our age of utility, consider useless, subserves in the hands of Providence, the means to unlock the hidden past. We take the buried chambers in Egypt, sealed in its dry atmosphere and sands for 3000 years; when now the Prussian Lepsius sent by his government with the munificent purpose of investigating the antiquities of that remarkable land, opens the catacomb, and there, in hieroglyphic, and on its painted walls, as fresh as if laid on but yesterday, a history is unfolded. There, perchance the waving field of wheat, in which the reapers gather the golden harvest, seated on his throne, the peaceful King, who seeks either quiet or fame in ornamenting and cultivating his fertile dominions—then we see the dynasty pass away, and from cradle to manhood another arise—then his conquests, his captives following his war chariot; among them follows the black man, or—as I prefer to call things by their proper name—the negro. Yes, 3000 years ago, now just brought to light is the negro with his kinky hair, thick lips and receding forehead—just as he is now and always has been. But let us leave to Ethnology these curious facts, and turn from our digression. My position is that the energy and intelligence of a people make a country, and, as a general remark, where nature does most, man does least, and not the reverse. I say that energy, indomitable energy, conquers all obstacles. The restless crowd who laid the foundation of Rome, from the rape of the Sabines to the downfall of liberty under the Cæsars, not only enlarged by conquest the limits of the great republic, but the whole face of the country was touched with its life-like energy, and while the proud citizen boasted "I am a Roman," he bowed down in worship to the Goddess Ceres as the inventor of agriculture. One vast field of villa and farm surrounded Rome, the metropolis of the world. The Campania now relapsed into a miasmatic swamp was decorated with all the taste that art and skill could adorn both in architecture and cultivation—here the greatest generals—returned from war, were impatient to be employed in the art of cultivation, and Cato, Virgil, Varro, wrote upon and adorned the subject of agriculture. Again, the wand of time waves over marshes filled with pestilence. In the meantime, the same skies, the same climate, the same seven hills, all, all there! but the heroic race who erected the pedestal of fame destined to be preserved in all time, they are gone, perhaps their energy never to be inherited. We pass to Holland, and there, below the level of the sea, an industrious race have thrown back his billows, and in defiance of Neptune, rescued the rich plains to good tilth and husbandry. There a plodding, patient race, under difficulties pursue the even tenor of their way, and in agriculture and commerce not only have gained, but are entitled to the respect of all who admire industry and thrift in man. Now England, including Wales, with an area of 57,000 square miles, not twice the size of South Carolina, with her 30,000 square miles, with a soil in a large degree made by human labor, she supports a population of

some 16 millions of inhabitants, and propers in every department, at this time, over, all the human race.

When we read the description by Cæsar of this Island, and follow up her proud history, the heroes, statesmen, historians, poets, too numerous in their celebrity to mention, and now the whole face of the country beautified with farms cultivated as neat as gardens, and then, even in modern times, comparatively, contrast the past production with the present, we find the increase marvelous. McCaul, in his history of England, puts it down as three to one. The same author says—could we, by some magical process, see England but a little more than an hundred years ago—"Many thousands of square miles which are now rich corn land and meadow, intersected by green hedge-rows, and dotted with villages and pleasant country seats, would appear as moors overgrown with birch or fens abandoned to wild ducks. We should see straggling huts built of wood and covered with thatch, where we now see manufacturing towns, renowned to the farthest ends of the earth." To pass to our own country, what has marvelously occurred in the last hundred, fifty, or even fifteen years, in the development and progress of agriculture. In the last fifty years, an article has literally commenced and expanded from a few thousand bales to three millions, worth, at present prices, one hundred millions. To make it a vast wilderness has been cleared—hundred of thousands of acres exhausted and in the eager pursuit, the grower has pressed onward, and as the wild lands lay west, his course has been thither. As the most frantic with hope, passed on, filled with anticipations of wealth, position and comfort, in the rear nought but desolation was left. No matter how generous nature had been, she was abused. The plow-share entered the apparently exhaustless field, and year after year robbed it of its wealth—gradually the complaint waxes louder and louder—something is the matter—yes, the seasons are getting out of order—we want more rain—the crops fade away, and after a succession of failures, ho! for the West. There, grappling with tangled jungles and immense forests—for nature upon the rich lands of the West carries on her operations upon a large scale—he, by constant appliance of the axe, the plow, the hoe and the spade, emerges at last from the wilderness. Those days are deeply and forever engraved upon the tablet of his memory. The man of the old and exhausted soil, who recently would lounge for hours in his village or country store, his interest in his affairs having decreased in proportion as his profits fell off. Now mark the change; the slow motion gone, his good natured conversation with his fellows no more, for he has come in among strangers, and the antecedents of either is unknown to each; hence, distance and for years want of congeniality. Day in and day out, he is worked upon by the restless spirit that has laid hold of him. He first wants to make as much as possible from the soil, and next, he wants to beat the crowd around him. Then he buys in prosperous years more lands and negroes, and has to pay for them in adverse

very often. Then every fibre of the brain is at work, and often, if his nerves are not of iron, he wishes he was back where he was raised, and had not imposed such hardships upon himself and family; and thus goes the wheel, perpetually turning, and with each revolution bringing anxiety and care. Doubtless a great law of nature is obeyed by emigration, and probably a great necessity. But it does seem, so far as health, comfort, and even profit, a great mistake has been made in hurrying destiny. For I hold that the same energy applied to the renovation of the soil, that has been to reducing the wild lands to cultivation, would have produced results, perhaps, more astonishing. Now all we want is, the same energy required of a Western emigrant, should be expended at home. An ever-active, watchful and attentive interest in the constantly progressive cause of agriculture, a fixed determination to succeed, and then sedulously to work to carry out fixed views. It is too often the purposeless, aimless object of most farmers that leads to discomfiture. Again, the spreading over too large a surface, the benefits we wished conferred upon the soil. Every farmer should understand the nature, capacity and wants of the various soils upon his farm. This is indispensable before a corrective can be applied. A handful of earth taken from the different soils upon a farm, and carefully analysed by an experienced Chemist, would frequently be worth more to the owner than the present value of his property. The precise application required by any soil, depends so much upon analysis of all the ingredients of which it is composed, that without entering into the vast field opened by chemistry at this point, I shall merely say that in no way could a part of the peoples' treasury be better expended than the appointment of an agricultural Chemist to analyze and inspect minutely the character of soils, with the view of placing it within the reach of every farmer, to know precisely what his soil wants, and how best to apply it, and what it can best produce. We have had State Geologists, and important general facts have been ascertained; a deposit of lime here, a mineral there—unavailable, perhaps, except to a particular locality. But over the broad surface, where agriculture patiently, year after year, presents her harvests to the homestead—where man is seen divested in a large degree, of the turbulent ambition, whose motto is, better "rule in hell than serve in heaven." Who only asks of his Creator, his blessings; for if there is a vocation on earth that turns the heart of man constantly to a kind Providence, it is agriculture, whose sole aim is to obtain from the bosom of the earth support and nourishment, and thus, honestly working, often in ignorance of the first principles of science, and in total disregard of his true interest, confirmed in his delusion the more, because, forsooth, his ancestors did so before him, this great class—the bulwark of strength to all organized society—has been permitted to plod on in shameful ignorance of the noble profession they followed. While years of mental labor is required to qualify the lawyer to practice on the vices of men; and the Physician, on the diseases; the Merchant, in learning to keep

his ledger; the Mechanic, to learn his trade; the divine, Theology—all consumers, yet the producer of the first gifts of nature—an operator amidst its mysteries, follows a routine disgraceful to the intelligence of the age we live in, as well as to his noble calling.

The Student of Agriculture, before he can become an adept in its art, needs the whole range of science, Chemistry and Geology to understand the nature of the earth he treads upon; Mechanics, to construct the implements he works with; Mathematics, to calculate the labyrinth of diagrams that cover over a well-laid out farm in its rows, ditches and all the combinations that enter into the growing and selling of crops; Politics, that he may understand his rights, with the hope he will maintain them; Law, that he may understand the basis upon which his rights in the great community of society repose; History, that he may learn how he vainly works to pander to the empty vanity of the despot or the demagogue, and stoops his back, that vaulting ambition may leap, booted and spurred to gain its goal.

But while all this and much more the agriculturist should know. How stands the case? You hear him talk of law and medicine as the two learned professions. He habitually defers to them as something superior to his own. His children thus consider they have gained a position in society if they can become a lawyer or doctor. Now, while I believe that law is, or should be, an eminently intellectual profession, and would be one of the last to decry its merit, that it trains the intellect, and enables the practitioner to command his thoughts and express himself with readiness in an emergency, which ready talent is captivating to the popular ear; and thus it gives decided advantages over the farmer and planter in public displays; and hence, too frequently a ready speaker carries the day over one vastly his superior in mind and accomplishments; and thus our public men are generally lawyers, if prominent, or have been. Now, cannot this be changed? Cannot the farmer and planter train his intellect by Agricultural Societies, while he is investigating the truths constantly discussed, and thus acquire that ease with the pen and speech, so essential to captivate the public ear and eye before he can reach its heart. Who has more leisure for improvement than the farmer and planter? Surely not the lawyer or physician, engrossed, as they constantly are, in the cares of a profession that requires undivided attention! It is, certainly, remarkable that so few farmers and planters have achieved distinction in the departments of science and literature. We can refer to many whose information is extensive and exact—who converse and write well—whose education has been thorough; and yet no effort is made to enter the lists of fame. Place them in any society, and they impress themselves by their independent bearing and vigorous thoughts, but seem contented to confine to themselves what was meant for mankind. Hence, all the roads to distinction being avoided, we find, while every other interest in life has an efficient representative, agriculture, the basis upon which all have their existence, is neglected, of-

ten abused, and rarely honored. How is this? If I may so express myself, the individuality of the life of a Southern farmer and planter, presents the cause. We have but little concert of action. We seldom come together for a common good, but remain disintegrated, each moving in the sphere of his direct interest, and rarely brought together by a common cause. The nature of other pursuits produce aggregation. Hence, the intelligent farmer loses his relative weight in society. Our Society and similar ones established in every District, co-operating with our State Society, will correct the evil. Here we meet to compare ideas, not in the spirit of ostentation or vain display, but to search after and obtain the truth. Here may be brought the collected fund of information, and by interchange, our knowledge augmented, and at the same time our capacity to impart what we know, clearly and gracefully improved. A bond thus established here, and extending throughout the State, will enable us to make known, most forcibly, our wants and wishes; and what organization can have more respect and dignity. Our object, not to effect some fanatical design or soil ourselves in an embittered strife for some selfish party end, but owners and possessors of the soil having no feeling but patriotism to actuate us, we come together to ask the question, how this fair land of ours can be best restored and improved? As proprietors of the soil, we wish to extract the bounty of crops—to adorn, by our industry, the surface of our country, our homesteads, and thus develop that spirit which alone can make a people sincerely attached to their homes and institutions. Not by the vain regret of the hypocrite that we are not as prosperous, active or thrifty as other people or nations are; nor whining with the demagogue and dropping crocodile tears, that we have not the energy of the North, and compare our mechanical industry, perhaps, to prove the fact. The comparison is odious at all times to us. We have not entered into a compact to break it whenever power or money is to be compassed or made. All this we know is done to use a common endearing phrase by our "Northern brethren." Yes, we all know our cotton, rice, tobacco and other products amount to three-fourths of our exports, that commerce is barter, and that they are exchanged abroad for other products, which are brought back, and then a tariff charged, which raises a revenue, millions more than an expensive government requires. Not only so, but the revenue thus raised is three-fourths again expended in non-slaveholding States.

Any wonder then they are rich; surely their barren exports does not make them so. Again, capital is daily becoming larger in the North, and labor cheaper, because poorer. Capital reaps its harvest where masses are stowed densely together. Hence, the policy and the fact of villages, towns and cities to be seen on every side. There, with cheap labor, our carriages, our implements of husbandry, our furniture—if you please—our brooms and buckets are made, and why! Because they can be made cheaper than we can afford, and just so

soon as such is not the case, we make for ourselves. Does the purchase of articles, cheaper than we can make them, impoverish us? Is this the cause why we cannot retain our money, and the North accumulates so much. I put it to any farmer or planter, whether ordinarily he expends the tenth part of his income in the purchase of Northern stuffs, and even that small sum, comparatively, is because it is cheaper than he can afford to make it. Before the North can turn a spindle, she buys our cotton—so much deducted. Before she makes a shoe, South America supplies the hides. Before she can dye a yard of cloth, the tropics must furnish the raw material. Before she can build a ship, the live oak groves, and timbers of the South must contribute. Yes, the South and slave-labor supply all her pressing wants—she could not do without us—we can without her. Why then, is it that this bleak climate, poor soil, and naturally uninviting section, is so often quoted, even by our own people, as an example to us? They point us to their magnificent cities, and factories and model farms as incentives to us. Are we told how squalid, low an object poor humanity, pressed by want, is seen in all the vilest degradation. We see the evidence of wealth, but the laborer, except when he murmurs for bread, is not seen or heard. The wealthy is vastly so—the poor pressed to extremity. The revenue of government collected from one section and expended upon another, makes the rich richer, the poor poorer. It is easy for the wealthy to expend their means in adorning a fancy farm,—spending one thousand to make one hundred; to build Railroads upon bonds never to be redeemed; to establish watering-places and hotels with the money Southerners give them. But it is hard to have one of our own people praise them for it—to have their example thrown up to us, when we know the most deformed theories exist, which, if adopted, would make man a brute, and woman the angel of creation, a demon. Human rights are defied, connubial fidelity scoffed at, the most horrible doctrines promulgated, and this is the entertainment we are invited to. For one, give me, forever, our old fields and old habits, our women pure and lovely, our citizens honest and true, a thousand times over to this Pandemonium of society.

We want no such models, and mark the Southern man who points us approvingly to it, as harboring sentiments repugnant to our very nature. No! political and social causes have made the North. We ask no favors; would accept none such. But we entreat the farmers and planters of the South to study well these things, and shun, as they would the pestilence, the unnatural suggestion that would lead us to imitate a society so foreign to our interest and happiness. We are a peculiar people. We own negroes as slaves, *and trust ever will*. We have every variety of soil and climate, even in our own State. Here, in sight of those mountains whose blue peaks contrast so splendidly with the blue canopy above and around them, we have a climate in their midst almost of perpetual frost, where products of a Northern latitude can alone be raised, gradually receding to the sea shore with

all the intermediate variety; there the ever-blooming orange tree mingles its fragrance with the magnificent magnolia. Through these degrees our great Railroad penetrates, and the day will come when the car poised on the summit that divides the waters of the Gulf from the Atlantic will roll in ten hours to the sea board.

Here, in proximity to it, we have an advantage in our cereals, for cotton is forced in this latitude to reach the point of export or consumption, cheaper than the fertile lands laying on the Northern slope of the Blue Ridge, and as it regards their cheapening any article we may grow, by reason of their increased productiveness, they will simply receive a common price governed by the great law of demand and supply, so far as this continent, or even Europe, is concerned. They may make larger incomes than ourselves, but we will lose not one cent, as general, not local, causes will regulate the price of each commodity. What a blessing then to us, will be this great thoroughfare, which will bring the varied products of the earth to our doors, and enable us to compete in the great market of the world. Then those wonderful fertilizers, whose touch makes barren nature prolific. How strange that a handful of earth, gathered from a barren island, is now carried to the four quarters of the globe, and wherever it is strewed, excess of production recompenses for the cost of its long and expensive route. Guano has now established its claims to the first rank of fertilizers. There are now arrangements being made, by which it is hoped its cost will be reduced, and the profit of the farmer increased in proportion. Then again, calcareous manures—who is not familiar with them by reading the noble essay of Ruffin—who tells us its effects upon every description of soil, and how applied. I can only touch, not enter upon the wide views each topic presents, without making this prolix. Having then, the channel opened by which we can avail, if needs be, ourselves of every imported manure; we have the resources in our midst to make any quantity of manures that we have the time or means to apply. The stable or barn-yard, the leaves that drop as we want them, offer in themselves on combination, ample supplies to fill the measure of every want. I said an agricultural Chemist should be appointed, for there are deposits at nearly every point where fertilizers can be found. On my own farm, as you ascend the celebrated hill that gives its name to the place, as you ascend *Fort Hill*, in repairing a hill-side road, at the depth of several feet we threw out a soil of clay, sand and pebbles; upon this earth a few seed of oats fell, and both in stalk and heads, were equal to any I ever saw upon the richest or most highly manured land. I think there is lime in the soil, but the general absence of it in this section would seem to oppose the supposition. Be it as it may, it is a fertilizer, and I think a remarkable one. Whether the deposit is extensive I have not ascertained, I will have the earth analyzed, and will give you the result at some subsequent meeting.

Upon such slight causes frequently great results accrue: No one should permit a chance to

escape, that offers a reward, even if multiplied failure should be the result. We have a climate in which corn, peas, wheat, oats, rye, barley, potatoes, sweet and Irish, turnips grow well. Their production even upon our richest land can be much increased. Except in a few instances, and upon a small scale, no imported manure has been tried, and the home-made too often only applied upon galled spots, and without reference to a system. Much of our worn land is "turned out." The great difficulty seems to be want of concentration, or method in attempting the restoration of the soil. The manure is frequently put where the pressure of water has peeled the surface soil, and, where of course it floats off without rendering aid.—

Without hill side ditches, and rows gently carrying the water, this is waste; again, a small quantity is spread over a large surface, whereas concentrated upon half the space it would not only be more efficient in results, but at the same time reduce the labor of cultivation, and be more permanent in its effects. Manure tells better upon rich than poor lands, and hence an additional incentive to the renovation of our soil. If you have soil capable of making thirty bushels of corn to the acre without manure, well manured they can be carried to sixty bushels per acre; whereas if you put the same manure upon land capable of making ten bushels per acre, you can only hope for an increase of five or ten bushels, and the effect not so lasting. I am not now taking into consideration the investment for lands that make the ten bushels which are only worth perhaps the third of those which produce thirty bushels. I am only stating the fact, and my convictions. Our rolling, broken land should be seeded, the table valleys and low lands permanently in corn, except for rotation, the principal if you run any crop too long upon the richest soil, it loses for the time to a large extent its capacity to produce it. The rotation of oats, rye or wheat with corn and peas is the practical one with us. I am opposed to land being thrown out unless perfectly valueless. Lands seem to deteriorate when laying waste; it washes more and requires a vast deal of care to bring it back to cultivation. The great obstacle to the renovation of land is the heavy pasturage. A field nearly exhausted, that throws up a feeble effort of growth is not only ravished by the cradle, but the hogs and cattle in all kinds of weather, are permitted to stamp the little vitality in the soil out. Now if we must cut the grain, or crib the produce, for generosity sake turn in early in the fall the growth that follows when green. This pays compound interest another year, and even if not manured is gaining, and the point of production will gradually advance.

I would be the last to discourage the growth of grasses, but in my opinion there is no grass now in general use, that I know of, that will grow upon our ridges, but the Bermuda, and it will only do for grazing—nor have I ever seen it grow on highland tall enough for hay. In regard to its being a dangerous grass, my conviction is, it is, when contiguous to lands that are valuable for agricultural purposes. If there is a detached lot, or field which the owner

wishes permanently to make a pasture, he can have one of Bermuda that will defy seasons and trampling. Horses and cattle are fond of it, and it makes fine mutton; but, when once set there would be great difficulty in exterminating it, although on a small scale I believe it may be done. My stable lot is covered with it, a perfect mat. A plank fence separates this lot from an old and valuable apple orchard—it has gradually invaded it, and on the half adjoining, many trees have died out, and it had spread over the whole orchard, impairing every tree. Last winter I had the land in the orchard plowed with a turning plow, and the roots of the grass exposed—it remained so until, the end of February, when I broke it up again, and then sowed on one half oats, on the other rye. In addition I raked from around every tree ten or fifteen feet, trimmed them neatly and manured in that circumference. The result is I have saved the trees, checked the grass, and they have been heavily loaded with fruit, and now hope to exterminate it another winter.

I consider corn the most valuable crop upon low grounds we can grow, and whenever from thirty to forty bushels can be grown to the acre with the fodder, which I cannot underrate as some do, and the peas and pumpkins besides—there is nothing that approximates it. The white clover also grows well on the ridges, and renews itself for a series of years. I had a good stand upon a field that was open to stock all last year, but enclosed this, and it was grazed so close last year that I saw no sign of it, but this year it came up thick and flourishing.—Every thing is fond of it, but it salivates horses if they eat freely of it. I have heard salt in large quantities was a corrective. Even if we should fail in our experiments on grasses, we have material enough in what we know will grow well to make a most desirable country of this. I think well of it as a farming, but not as a grazing or planting country. It is folly to try to raise cotton here. It is a great mistake to cultivate our hill sides in cotton, clean as we are forced to keep fields, for the summer rains carries off the loose soil in fearful quantities. Besides its cultivation does not repay. To undergo the labor of annually manuring nearly every acre, and then go through the tedious process of cultivation and gathering, ginning and picking, for one or two bags to the hand, is rather too expensive. With a rotation of cereals we can always make sufficient abundance from crops and pasturage to furnish beef, pork and products of the dairy, and as surplus to our wants, make fair profits. Although we can not raise horses and mules as cheaply as the grass regions of Tennessee and Kentucky, still the great demand for them and the steadily increasing prices, would even here, make raising them very profitable.

If we dismiss the subject of farming, we can not close without some allusion to its indispensable accessory, Horticulture. Our climate is admirably adapted to the peach, pear, apple, plumb in fact to every variety of fruit, grown in this latitude, and we think the experiments so far made, prove ours to be a fine grape soil and climate. All these are the sources of great

comfort and luxury, and some of them of large revenue. In Cincinnati and elsewhere the culture of the grape and choice kinds of apple is becoming very profitable. We have about us some evidence of a growing disposition to cultivate fruit which may yet form the nucleus of great future development.

But while we have confined ourselves to the useful, why not indulge in the ornamental. Fruits and flowers, the very names carry fragrance to the senses. Can the Creator have intended one of the most beautiful features of all his handi-work to waste its fragrance on the "desert air." If the rude encounters of life devolves appropriately upon man, to woman, should the cultivation of flowers be especially consigned; not only because of the intrinsic beauty of the occupation, nor because it transfers to her fair hands the most delightful of all culture, nor surrounded by these she blooms the queen of all—but because the human flower fades if constantly immured in a *hot house*. There breathing an air hemmed in by walls, moving listlessly about in its confined limits, she loses all that bloom and elasticity that should survive even middle age. But with elastic tread, follow her steps, in early morn, when the balmy breeze of spring fans its sweet odors, over beds loaded with pyramids and festooned with wreaths, through which kind nature smiles, her brows sparkling with drops reflecting every prismatic color, and tell me cold advocate of utility, if your selfish heart does not warm up at the picture, if not, her life blood does, and soon the lilly and the rose become daguerred upon her cheeks, and she stands in perfect loveliness the "image of her maker." While we are called by our pursuits constantly in contact with the forest or the field, he purely domestic or sedentary business of daily life is committed to woman, and should she be adverse to ordinary exercise in open air, she not only becomes the victim to all the "ills that flesh is heir to," but sympathy between mind and matter soon attacks the throne of reason itself. The floral culture opens to woman the most beautiful vista in the future. It refines her taste, strengthens her constitution, and with her path literally strewn with roses, she goes through life the guardian angel of man, the kind mother, the affectionate wife, the devoted sister, practising all those amiable virtues which crown the character of her naturally pure and noble nature. Activity and energy is as important to woman as to man, and as his inspiration in all that is great or good, comes from her, it is more so.—A good constitution is at last the basis upon which usefulness must rest, and as exercise in the open air is indispensable to render it attractive, I know no better gymnasium to woman than the flower garden. It beautifies the homestead, and every tendril thrown out entwines us still closer to the sweets of home, and here begins patriotism, enlarge it as you may. For if home be not an oasis in the troubles of life, how can the heart beat with heroic impulse for its defence, or make those noble sacrifices that alone make a people great, patriotic, or brave.

Gentlemen of the Society, met together for a common cause, let me entreat you to cherish

an esprit du corps for this old and intelligent organization. Let us make it the means of great usefulness, to ourselves and section and perhaps at some future day, we may point to renovated fields bearing rich harvests, surrounded by neat hedges or fences, homesteads whose white walls contrast charmingly with the green foliage around it, the barns well filled, the stock fat, then with abundance for ourselves, and a surplus to spare, we will look back upon these days as those of bondage, and the transition from them the Exodus to a promised land.

REPORTS.

To the Laurens Agricultural Society, held at Laurens C. H., September 26th and 27th, 1855.

"Clovers and Grasses."

Your Committee to whom was assigned the duty of reporting on Clovers and Grasses, approach the subject with a certain degree of diffidence and distrust, as one upon which much has been said and written, but about which the quantum of correct and definite information is small. Yet we are constrained to acknowledge the very great and high importance of the subject, the more especially, when we consider the general distribution of the Grasses over the face of the globe, as being an essential feature in the Providence of God for the subsistence of of His brute creation, and through them of man himself. In the primitive days of earth we find that pastoral life began. Abel was a keeper of sheep, and Abraham found it necessary that he and Lot should separate for the better maintenance of their herds, the one to go to the right the other to the left. Nor has time, nor the changes that advancing science has wrought in agriculture, superseded or annulled the importance of the grasses in the economy of life.—Your emigrant trains or trading companies would not dare to pass beyond the frontier settlements of the West, nor could your Government plant its military posts beyond the borders of civilization, were it not for the grazing facilities spread out by the bountiful hand of nature. Again, were it not for the grasses that sustain millions of cattle on hills and plains, steppes and prairies, the very shoes that enease your feet would be deemed an inadmissible luxury. But to take a more familiar and home view of the subject, what would become of your poor cattle and hogs, "your lean kine and land-pikes," just emerging from winter quarters—the wind, in the meantime, sighing dolefully through empty barns and granaries—were it not for the scant supply of native grasses, springing up here and there along lands and fence-corners, and in exhausted old fields?

Let us not forbear to indulge in an express-

ion of deep reverence and gratitude to our Creator, that he has provided so carefully and so amply for our wants in this respect, inasmuch as He has bestowed us numerous varieties of grasses, adapted to every diversity of climate, soil and season. We have winter grasses, others making their appearance in early spring, and others flourishing in summer and autumn. In the grazing portions of Tennessee a supply of either native or artificial grasses is wanting for only two months in the year, January, and February, which interim could be filled up by sowing rye, barley, musquit grass, Resene grass or some other winter variety. Here, in our own State we need not be without green pasturage a less time, climate being milder, if we would only give our attention diligently to the subject, and practice what means we possess, so as to develop our resources to the fullest extent. But you propose the question, are our lands well adapted to the growth of Grasses? We answer, that if not as well as other more favored portions of the United States, they at least can be cultivated to an extent that will remunerate: that their growth to a certain extent, either spontaneously or otherwise, is indispensable to us as a stock raising and agricultural people, and that we indulge sanguine hopes, may confidently believe, that there are many varieties, both indigenous and exotic, which being properly managed would repay us for our care and labor with abundant success.

But your Committee find the subject of "Clovers and Grasses" one of such vast extent, that it will be utterly impracticable, on an occasion like this, to give details of all of them. We shall, therefore, confine our remarks to a very few of the most important.

Among the fifty-nine different species of Clover described by botanists, we regard of first importance the large Red Clover, (*Trifolium purpureum majus*.) That it will succeed here and in other portions of the South is getting to be a settled question. At least intelligent and sagacious farmers, such as Col. Croom of Ala., and Col. Peters of Ga., assert their entire success, and have ventured some hundreds of acres in Red Clover. We do not mean to say that it will do well on all kinds of soil and with any kind of management, that cannot be predicated of any crop. The strongest proof that it will succeed is, that it has already done so in numerous instances, not only in this but in the surrounding Districts. There is at this time two luxuriant plats of Red Clover growing in Cokesbury, affording to the eye the most delightful

prospect, and to stock the richest pasturage. The seed were sown last February a year ago with oats. One of your Committee has experimented to some extent on this subject. The amount of land sowed was seven acres, composed of hill sides and some two or three acres of branch bottom. Only a portion of the hill sides done well, in consequence of being kept back and stunted by the oat crop, till the Crab Grass got the start and overran it. In the bottoms, where the soil was better and more moist, the Clover grew off vigorously, and by the time the oats were off had possession of the ground and a light dressing of ashes. The soil is a dark, sandy loam, mostly alluvial and sufficiently rich and dry. The quantity of seed sown to the acre was four quarts. But it is better as a general rule to sow six quarts and without small grain, as experience has fully shown, in order that the young Clover may get possession of the ground, and send down its roots sufficiently to withstand out hot, parching summers. When sown by itself, it makes a much more rapid growth, increases in hardiness and becomes gradually inured to the increasing heat of the sun; while by following the opposite course, it is kept back stunted by small grain, and being suddenly uncovered at harvest to a burning sun, with a weakened vitality, is apt to be killed out in dry and arid soils. It does best in rich, tenacious clay or calcareous soils, and if lime is not present should be supplied in the form of plaster. In Tennessee the proportion of plaster is 40 lbs. to the acre: here, where lime does not generally exist in the soil, 200 lbs. would not be too much. It is sown on the young Clover the second spring after it puts forth its green leaves. It should not be pastured the first year. If it becomes infested with weeds or grasses, mow off every thing to the ground; the young Clover will take a new start, and grow with sufficient vigor to take the lead and finally overrun its enemies. It is the custom in the Middle and Northern States to sow Clover and Timothy together for hay, and mow twice a year, the first mowing about the first of July, the second the last of August. The yield is from one to two tons per acre.

Trifolium repens—*Small white Clover*.—This also is a valuable species of Clover, and succeeds here without the care necessary to Red Clover, though requiring the same adaptation as to soil and other circumstances. In favorable locations it will attain to the height of 10 or 12 inches, furnishes good pasturage, and is entitled to more consideration than it receives.

Alsike or Perennial Hybrid Clover. This is a gigantic species of White Clover. It is a native of Sweden, where it has been cultivated for the last one hundred years. There it reaches sometimes the height of five feet, and is highly prized for its hardy and nutritious properties. It is also grown in Holland and in England, growing in the latter country about two feet high. The seed have been distributed through the Patent Office, and we hope some gentleman of the Society will have an opportunity of trying it.

Chili Clover. This is a species of Lucerne, has been tried in Florida and South Alabama, where it grows from three to five and seven feet high, and is said to make most excellent hay. Who will try it here?

Among the grasses proper, we know of none more worthy of your attention than the much despised Crab-Grass. Though flourishing so admirably here as many can attest by dear experience, it is, according to Dr. Bachman, not a native of this country, the seed of that as well as the crow-foot having been originally imported from India. In its proper place (which is not your cotton fields) there is scarcely an article in our agriculture, of more vital importance. This together with common sedge-grass, sustains our cattle throughout the grazing season, and furnishes us with a hay; and usually commands in our southern markets \$30 per ton. A gentleman of Autauga Co., Alabama saved in 1835, forty tons of most excellent hay off of twenty acres of bottom land, and it is asserted that many of our stubble fields will yield as much as two tons per acre. If then we could only calculate on one ton per acre, and there are many spots about our farms that would yield this much, it would be worth \$30 in market, with no labor or expense but the saving and selling of it. And with all our facilities for transportation, why not market it?—Your much-loved cotton, with fourteen months expended in making manure, preparing land, cultivating the crop, gathering and preparing for market, will not neat you more on your very best lands.

Timothy. This grass has been grown successfully by Mr. Garlington of this place. It constitutes one of the great provender crops of the Northern and middle States, and has done well in several of the Southern States. We recommend it to more extended trial.

Herds Grass and Orchard Grass. The former will do well here in low, moist situations, unfit for the cultivation of other crops. The latter requires shade, and has been tested here by the

late Mr. Hastings Dial, of this District. He grew it for several years in a large apple orchard. It furnished abundant pasturage for his calves and sheep.

Guinea Grass is perhaps a valuable acquisition to us, being well adapted both to grazing and green-soiling. It furnishes a large amount of food, growing several feet high and may be cut several times a year. It matures no seed and must be entirely propagated by the roots, which resemble common cane. It is cultivated extensively by the Maxwells, of Pendleton, by Mrs. Goodgion, of this District, and by ourselves in a small way. Its roots are said to be valuable for hogs in the winter.

Lucerne is a grass of high reputation, and forms a common and beneficial bordering for gardens. In a garden of ordinary size enough may be raised thus, to feed one or two milk cows, and make the richest milk and butter. It allows cutting earlier and oftener, than almost any other grass. It requires to be cultivated, and hence more neglected.

And now with a few remarks on Rescue Grass, we will conclude, having been forced to a greater length than was desirable from the amplitude of the subject, yet we have not exhausted it, merely broached and glanced at it. The Rescue Grass, (*Cerat chloa Breviari tata*) is a native of the Pacific coasts, and was originally introduced here from Texas, as the Texas Oat. Mr. Iverson, of Georgia, procured seed, dubbed it "Rescue Grass," and sent it forth such extravagant ecomiums, that he has excited a mania somewhat akin to the California gold-fever. As a specimen of the reckless praises lavished upon it, we will instance that he states "without reservation, that it is the most valuable grass ever introduced." The effect of this boundless praise is that Mr. Iverson, has been able to sell all the seed he could raise at the rate of \$20 per bushel, and if he has 100 acres or more sown, and the yield per acre 100 or 150 bushels, as we recollect to have seen stated, he has realized \$20,000 per year, by the sale of the seed. A good grass, truly, that will make such ample returns! A second effect of this extravagance, is to deprive his grass of its proper credit among a large portion of the community. Without endorsing all or even half that Mr. Iverson says of his grass we are willing to admit that perhaps it will prove an acquisition of considerable importance to us, from experiments made by two members of this committee, last winter, under the disadvantages of an unprecedented drouth. It is evidently a true winter grass, no degree of cold seeming to affect

or blight it, while stock of every kind, as well as poultry are remarkably fond of it. Its branches from the seed more than any other plant we have observed, and the yield of seed and hay in rich soils, and in seasonable weather is undoubtedly very great. Dr. Barksdale, of the Committee, sowed half a peck of seed on one eighth of an acre of ground, and gathered $4\frac{1}{2}$ bushels, losing perhaps a bushel or a bushel and a half on the ground, making at the rate of 48 bushels per acre. Yet the seed weighs only 18 lbs. per bushel.

The Committee close the report, conscious that they have omitted many varieties worthy of your attention and trial, but they hope that a subject of such intrinsic importance will be no longer neglected, and that there will be found many experimenting with a view to develop our hidden resources and to benefit themselves and their country.

Respectfully submitted,

A. C. FULLER, Chairman.

For the Farmer and Planter,
Mechanics.

FRIEND SEABORN:—Whilst at my seat I will run off for you another article upon implements, and take *the hoe* as the next most important tool.

R. L. Allen, of New York, of the Agricultural Ware House, paid me a visit 31st May, 1847, and left on 2nd June; during the two days he was with me, we were engaged in examining field culture and implements. Many will smile at this and say *humbug*. Well, be it so. Of course, I was so rich that Allen could afford to come here to humbug me. Among other things I begged at his hands, was a *hoe* and a *drawing knife*. I gave what I regarded the best pattern, and requested the best steel be used. He sent me the Scovel hoe; some of this first dozen are now in use, having made 8 crops, costing \$9 per dozen, I believe. The first hoe made strictly by my direction had the bevel above, steel below. Scovel, in reply to our earnest appeal not to lay steel above and bevel below, wrote me some years ago, that all the people said I was wrong. This only made me more confirmed, for I examined and tried myself as well as my hands. I beg you to know I can handle a hoe as well as a pen. But so it is, I cannot get the bevel above. With my hoes I can cut an oak or hickory sprout an inch in diameter. I regard them better worth \$2 $\frac{1}{2}$ than the iron hoe is 50 cents. I grind them in seraping cotton time 3 times a week, and whet with best cross-cut saw file, daily.

The other tool I prize, *drawing knife* is the thing. Allen sent me one as a present. A laborer was drawing shingles here, and offered me \$3 for it. I sent for a dozen, and he soon sold them to shingle makers. I have had some half dozen, and never found a second rate one. These who use this tool, know what was the difficulty 10 years ago—buy 5, and *may be* get one good one; they cost 87 $\frac{1}{2}$ cents to \$1.25, I think, owing to size. I forget the maker. They differ a little in shape, and altogether in material.

The *spade*, aye, sir! a spade made of steel, for stiff sticky lands is a decided improvement, it can be kept to a keen edge, and a hand can do a fair days work. Long handled shovel or scoops; short handled shovels with iron band pieces is best; steel forks, solid steel, four prong, for manure and for hay, are all useful where ditching, leveeing, &c., is to be done. We have to dig cisterns, pools for stock as well as the above. Ames' spades and shovels stand first best.

The *road scraper*, worth \$5 to \$10, will do more in cleaning up a horse lot, or getting earth out of a pool, than 10 or 20 hands can with hoes. Hoes? Yes, sir! I have seen 40 to 50 hands cleaning a lot and loading a wagon with hoes, when my boy A——, 16 years old, and old Mike mule could have gathered all manure convenient for loading with shovels and 4 stout fellows could have loaded in less time, requiring one-eighth or one-tenth the labor with proper tools. Oh, psia! says Mr. Croaker, we have to find work for our negroes—we have no clearing and no ditching to do, and have to keep them busy. Aye, and had your father not lived before you, those hands would have been employed by some one else. Go and help your poor neighbor if you can find nothing to do at home.

I suppose I could allude to many other things, but at this time of writing I will not attempt.

I make it a point to get the best tools of every kind, and to keep them in good order. My crops for 10 years together were 8 bales, 200 to 250 bushels of corn per hand, and meat to spare; and I think tools aided me in this, for I never yet could make a crop without having some odd notions to work at, usually needing a tenth of my force at a orchard, road, building or something, not day after day, but sometimes all for a day, &c., &c.

Yours, in hopes of better days,

M. W. PHILIPS.

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All wet lands should be drained

From the American Cotton Planter.
Economy in Stock Feeding.

DR. CLOUD—Dear Sir:—It becomes every one who has a hog, cow, sheep or horse to feed the present winter, to study well the most economical way to do it. I know farmers in North Carolina who keep their stock in fine order on half that the Cherokee Georgians feed and waste. Georgia farmers would be surprised to visit some of those old North Carolina plantations and see their stock in such fine condition, and hear the proprietors of those plantations relate the *modus operandi* by which it was done. To see their corn cribs, shuck houses and barns in the fall of the year, one of those extravagant Western feeders would say at once that every thing on the place must starve to death. But remain on the farm through the winter, and see how regularly the stock are housed and fed with shuck and hay, which had been nicely stored away after having been sprinkled with salt water; see how finely the oats and "fodder" is cut up, and a little meal and salt sprinkled over it and mixed up, and regularly given to the mules and horses standing in their stables, well littered with leaves, &c.; see what fine lots of rye and grain the stock of all kinds are permitted to run on in good open weather, (in inclement and bad weather they are housed and fed as a horse,) and the problem will be solved.

He would then see how a "short crop" could be made a long one, and stock kept in good order.

Now, I would not be understood as intimating that all the North Carolinians are of the stamp referred to. I know full well that too many of them are like some, and I might say all, of the planters in Georgia, Alabama, Mississippi and Louisiana, so far as my knowledge extends, who throw the food to stock irregularly, just as it leaves the field; and I know also that these farmers* have stock with their "hip bones sticking out," and have to commence buying corn in March too.

There must be a radical change in the system of plantation economy as pursued by our farmers, particularly in regard to the keeping of stock through the winter, before any very striking improvement in our system of agriculture may be expected.

Experiment is the only means by which we can arrive at truth. This is a truth that no one will question. And as my object is and shall be to learn all I can, in every probable way, about the great science of agriculture, I pro-

pose making the following experiment in the feeding of mules, and report, if I should live, the result through your journal at the close of the year 1855.

The 1st of June next, I intend to select two mules of equal thrift and condition, and feed one of them with fodder, corn and oats, as is generally done, in its natural state, and take particular account of the amount it consumes, and the condition of the mule. The other I shall feed with fodder, oats, meal and salt, prepared in the following way: Cut up the oats nicely, and put a little meal and salt with it, and mix all together with water, and prepare the fodder in the same way. The condition of the mule and quantity consumed shall also be noted and reported as promised.

In conclusion, permit me to inquire of some one of your numerous readers, whether or not they have ever fed to hogs, in a sound state, cotton seed, and if so, in what way were they prepared? I have been told, that to throw the seed into a pool of water, and let them remain twenty-four hours, and then turn your hogs on them; they will eat them and do finely. What do you think of this plan?

Yours, &c.,

G. D. HARMON.

We have understood from gentlemen in this country, they have used cotton seed as food for hogs very successfully, by boiling them, and adding to them a small proportion of corn in the process of boiling. We have heard others say, they feed them to hogs successfully, by hauling them by cart and waggon loads into pools of water. We look upon cotton seed as the very best manure the planter has, and have, therefore, believed it the best policy to first convert the cotton seed into corn and feed the corn to hogs? Our good friend Harmon, is right in his philosophy about stock management. We have much to learn yet in this important department of plantation economy. The article below is in point an interesting one; we take it from the Transactions of the New Hampshire Agricultural Society for 1853. We shall be greatly obliged to Mr. Harmon for the report of the promised interesting experiment.

—ED. AMER. COT. PLANTER.

"Gen. W. P. Riddle, of Manchester, entered the list with a pair of white horses, one of which was twenty-six and the other twenty-eight years old. The way in which these *old chaps* came to "the right about face" at the end of the furrows, without long reins or driver, evidently showed they had been well *drilled* under the discipline of the General, during the

*North Carolina farmers.

past quarter of a century, as they finished their task in nineteen minutes, with Doc's No. 5 plow, with a "sharp edged revolving cutter."

General R. has kept his horses for the past three years on the *daily ration* of four quarts of Indian meal and three pecks of cut hay to each horse; on this allowance it requires about one bushel of corn per week, or fifty-two bushels per year, and one ton of the best quality of English hay, for feeding a horse annually. Corn at one dollar per bushel, and hay at thirteen dollars per ton, makes the cost of feeding a horse on Gen. R.'s plan amount to sixty-five dollars a year.

For the Farmer and Planter.
Mechanics.

FRIEND SEABORN:—In your Sept. number you have my article on Implements for the F. & P.; ere this time another should have followed, but was not very certain it would be acceptable—I suppose, like corn bread to some, it will do to fill up, to keep from starving.

There are those who be so fearful of some one being humbugged, that they have been frowning at the improved implements. Why should they fear? Barnum, or that cotton seed man, might possibly get a dime out of their pockets extra, but no one else.

Permit me to refer to the *Cotton Press*: *McCombs' No. 1*, with heavy cast iron levers, worth \$300, has been the most expeditious Press I know of. I have thus far run my bales to 26 inches, being 24 wide in the box, bales, running 500 to 570. To-day, 6 hands, without any pushing more than their own ambition—no white present except a few minutes—no ordering nor racing, pressed 15 bales before half-past 10. We can press 30 easily if there was cotton. If cotton be in the Press room, 4 hands can, on a little encouragement, do it. *McComb's* has 3 qualities; No. 1 is costliest, but not differing, except in irons, in lieu of wood.

Lewis Lewis, of Vicksburg, has a press equally as expeditious, less wear and no danger from carelessness, and not the danger as in the *McC.'s* press. The cost is about the same.—Irons and fee for use \$160, about 100 to 140 to build. I have tried the Sash Press, worth about \$100 to 150 here; by dint of hard work could get out 20 to 22 bales of 4 to 450. With the outside Press I have no experience, but have seen 5 to 700 lbs. bales, about 6 feet deep, 2 feet wide, and 4½ long. Beautiful models. Admit one press at \$100 will, with same labour, make 20 bales of same size, is it better economy to pay \$120 to 200 more and turn out 50 per

cent. more bales? This is a question that each man can solve. I have put up a crop that a hoop 8.2 feet clasped.

The gin stand, running gear, press and grist mill, are articles of prime necessity, and cost to utility is not so great as of the articles that soon wear. The articles alluded to by me will give satisfaction, I have no hesitation to affirm, which, to some, will compensate for increased price, if, indeed, there be any increase of price, which will not be, except in the press.

The plow is, perhaps, the most important implement to the farmer and planter. Many planters look at the price, and buy accordingly. In 1842 I bought two plows, paying at least double what I would have bought others at; would it be credited that the two horse plow has been used for, I am certain, 10 crops? I would refer to others, the Peacoe, now in use, and used in 42 crops; we have layed and sharpened, of course, and put in a beam or so, but caused by breaking.

I can now refer to the *Brinly Plow*, from Simpsonville, Kentucky, costing, I now forget, but I think \$6 and 9 for single and two horse, having used a pair this year. I will not wager anything, of course, but will take a plow made by Brinly, and try quality and draft with any plow I yet ever saw. The *centre draught* by Purnly & Mears, was, 10 or 12 years ago, the best plow; the beam was too low, and irons all cast, the objections to me—to get points and bars when needful. These plows are made in Kentucky, and any man from Bosting or Perropolis, can be accommodated with a trial of speed if he is very anxious.

The Subsoil Plow of Dr. Broyels' is far ahead of the Yankee concern that costs 2 or 3 times as much, that I need only say thus much.

Shovel plows, scooter, openers and coverers, if your folks do not know all about, your State Society would do well to order one of each. So far as I can judge, not travelled any for near 10 years, Mississippi is far ahead of Carolina and Georgia in the quality and proportion of implements. Though, bless you, there are planters here called good, because from hard driving they make large crops, who use plows as long as there is a piece of iron, and the cheapest sort. We can buy plows at \$4 good enough to skim the cream off the land, these hard drivers don't care for the milk. They have not time to go below the surface.

Yours, &c., M. W. PHILIPS.

Sept. 22, 1855.

Three things to contend for—Honor, Country, Friends.

From the Laurensville Herald.
Eureka.

To "CLODHOOPER:—Sir: As you are the only one who did me the honor of noticing my discovery, as announced in the *Herald* some weeks ago, I dedicate this number to you; I do it with the more pleasure because I believe you are an enquirer after the truth.

What I mean to communicate now is some experiments with different kinds of manure. They may not be exactly new to you and some Book Farmers; but I believe they will be to "two-thirds of the readers of the *Herald*."—Although they may not listen to me, still I feel it a duty "to cry aloud and spare not." But in sober earnest, to use an old proverb, if they knew on which side their bread was buttered, they would try these experiments for their own satisfaction.

1st. In a rail pen put 6 inches of mould from along the creek and branch borders, fence corners, &c., then a layer of ashes about one inch thick from the brush and log heaps, and elsewhere; and so on alternately, mould and ashes until the pen is two or three feet high or more.

2nd. Six inches of mould, 2 of cotton seed, and so on, alternately, as before; and to this it would be well to add, near the top, 1 inch of ashes.

3rd. Six inches mould, 3 inches from the lot yards, and 1 or 2 from the stables, alternately, &c., as before.

Lime for Nos. 1 and 2 would no doubt answer as well as ashes. Put your lime with the mould, but never with stable manure—you may put Plaster with the last. Ashes and lime correct the sourness of the mould, besides furnishing materials which plants must have. Plaster unites with ammonia, or the strength of the animal manures, and prevents their flying off.

These pens should be made at any leisure time during the winter, as late as the first of March. About that time lay off your corn or cotton fields with a shovel, scatter the manure in the usual way, and cover with two furrows. After this, plant and manage as usual, that is, if your usual mode is to *prepare well and tend well*; if not, the sooner you adopt that plan, the better—"better late than never." And now for my own experiments. I broke up a piece of broomsedge last fall, while the grass was green, with a turn plow. In the spring I manured with No 1, all as above,—having first broke it up well again with the scuter—and planted it in corn. Although my expectations were high, the result has astonished me—suffice it to say, at this time, it is a splendid piece

of corn—good perhaps for thirty bushels per acre. With Nos. 2 and 3, my success is almost not quite, equal. In cotton the effect is also very striking. Near to each other, is a piece manured with No. 1, and a piece with Guano.—Before the heavy rains set in, the No. 1. piece was superior—at this time they are about equal.

So much for this wet year. I have been trying these experiments for two or three years, and believe they will always pay, wet or dry.

Now, my young farming friends,—for I do not write for the old, who will still carry their pumpkin in one end of the bag, with a rock in the other—I say my young friends, here is matter worth your serious attention. We live in a country abounding in the materials mentioned above. If we knew how to use them, we have abundant resources. Do not let another year pass without trying these and other experiments. To know anything, we must learn, and all knowledge is science. Any other science is modern highfalutin. It skims over on stilts, the actualities of life without touching the ground. It is useless to its possessor and to the world. All distinguished and really useful men, have been working men
FRANKLIN.

From the Genesee Farmer.
Millet Culture.

In 1851 I had a dairy of forty-five cows, and having been obliged the year before to buy most of my fodder for a dairy of about the same number. I cast about to see if I could not find something that I could raise in the place of hay that I could keep my cows on, and keep them in a good condition, and at the same time get a good supply of milk from them for market (as milk dairying is my business.) I sowed corn and found it an excellent substitute; but to keep so many cows on it required too much labor, and after mid-winter it became too dry and harsh, and did not give much milk. In '51, I sowed four acres of millet (four quarts per acre) the 16th of June, and had as much fodder as from any eight acres of grass that year—and it was a good year for hay. I have raised from four to eight acres every year since, and have invariably had good crops of not only fodder or hay, or straw equal to as many tons of the best timothy hay, but from twenty to thirty bushels of seed to the acre, equal to as many bushels of corn to feed to any kind of domestic animals. I fed most of my seed, after having it ground to milk cows, preferring it to Indian meal, as making more milk and of as rich quality. The last season I had six acres of millet which has been worth more than \$50 per acre, or \$300 for

the six acres. I have fed thirty-five cows on the straw since the 25th of January, and have enough left to last until the 1st of May, and got 120 bushels of seed from the lot. The ripest of the seed, some sixty bushels, I have sold for seed, and the balance I am now feeding my horses, and find they do as well on the meal put on cut hay and straw as they did when I fed an equal quantity of corn and oat-meal.

Now for the manner of raising it; I have raised it on green sward, turned over at my convenience any time in the fall or in the spring up to the time of sowing; I then harrow until mellow, then put on from twelve to eighteen quarts of seed per acre, and as much fine manure as I can spare, from five to fifteen good wagon loads per acre, and sow about the middle of June, and I am sure to have double the amount of hay that the same land in similar condition would produce in meadow. It will stand the drouth better than any other crop I ever raised; in fact, it wants hot, dry weather for it to grow in; if it is moist enough for it to come up, there is but little danger, as the last two years have proved. After the seed is sown and well dragged or cultivated, the ground should be well rolled, as we get a good deal of dry weather about that time, and if not rolled it may be too dry for the seed to grow; but after it is once up, I think there is but little danger of a failure of a crop. The time of cutting that I have practiced is, as soon as I get through with my oats—say the last of August, or when about half of the heads have seed matured enough to grow. The stalk will be green and full of juice. I cradle it, let it lay one or two days to wilt, and stack it up as I do oats, put on a cap, and let it cure in the stack; it will then be as bright as the best toppings of corn, and any animal will eat it as any other forage.

T. B. SHEPARD.

From the New England Farmer.
Worms in Corn-Stalks.

This worm is a great pest to the farmer, and, although the complaints of its ravages are not so long and loud as those made against the cut-worm, yet it is none the less destructive to the interests of the corn-grower. As no article in any of the agricultural journals relating to its history has met my eye, and finding but few people conversant with its habits, you will pardon me for giving the results my own observation.

Its color, when matured to full size, which is from one inch and one-eighth to one inch and one-quarter in length, is a bright red and slate

color, interspersed with white. It deposits its eggs both on the corn and the dry stover, and it is probable that but few kernels of corn germinate but what have one or more of these enter its germ. It is seldom that the stalk is wholly destroyed, but it will have a yellow, sickly appearance for a long time after its appearance above ground, until it shows the tassel, the top of which is generally covered by the worm's chips, besides the last or top leaves being perforated with numerous small holes.—Some fields are injured in the above manner more than fifty per cent.

The remedy for this devastator is very simple, being merely to plant the corn near the surface of the ground, and be sure and not hill up any at the first hoeing. I have never seen corn dropped in the bottom of the furrow, or covered very deep, but what was more or less affected by its operations; and, by the way, I have never seen any thing that would stop the ravages of the cut-worm so effectually, as to pull the dirt entirely away from its roots, as the worm cannot or will not work much above ground.

Any one who has made much observation on this subject, will remember that worms always work the most destructively just after the corn has been hoed. When corn has been favorably started, it grows faster than the worm gains strength, and will throw it out previous to the appearance of the tassel, the worm being then about one-half or three-fourths of an inch long. I have counted, in once crossing a field at this stage of the corn's growth, as many as thirty or forty just coming into daylight. Perhaps Dr. Harris can favor us with some light on this subject.

CORN-GROWER.

Hanson, Feb. 7, 1855.

.....
Effects of Feeding Cut and Uncut Hay to Milk Cows.

From a communication made to the Agricultural Society of Worcester county, Massachusetts, by Mr. William S. Lincoln, we make the following extract. We copy from the *New England Farmer*:

"My milking stock consisted of one cow which came in on the 27th of October, the two trial cows, and the other, which calved last April, and is expected to calve again the 1st of next April. Some time before commencing this experiment, I was feeding my stock—what would be called poor stock—with hay, with an allowance of roots. I commenced cutting this hay for all my stock, young and old, (sixteen head) occupying me 1½ hours daily.

Almost simultaneous with feeding the cut hay was an *increase* of milk very perceptible as it was milked in the pail. An inquiry was made by my wife, who in person takes sole charge of the dairy, as to the cause of the increase. An evasive reply was made. From day to day the milk increased enough for the substitution of six quart for four quart pans, which had been previously used. I think I am within bounds in saying that the increase was over a pint daily, per cow, occasioned, to the best of my knowledge, solely by the use of cut hay."

From the Progressive Farmer.

Superiority of Boiled Food for Cattle.

There is much in the following article which is worthy of observation. We cannot agree, however, with the writer in boiling all food to be given to cattle, although there are special cases where the value may be increased by such practice.

The swelling of cut corn stalks by steam is certainly of advantage, but practice has shown that even many of the roots may be fed in the raw state, and still be entirely appropriated by the animal; thus carrots when fed raw are not found to produce any deleterious effects, and from their power to gelatinize the contents of the stomach they not only secure their own digestion, but also that of all other food with which they may become intermixed.

We also believe if dry cut hay is given to cattle, a small quantity of cooked corn meal in a very diluted state may be poured upon it, or upon cut corn stalks with advantage; for if such be covered up in a close vessel for a short time, the heat given off will improve the quality of the dry feed. Cooking food for hogs we deem of great importance, and the letters of James Campell and Mr. Mason of Somerville, on this subject, in our early volumes are of high interest.—ED. WORK FAR.

The most economical method of feeding stock is a subject in which every farmer should feel a deep interest. The good qualities of many kinds of food given to domestic animals, are susceptible of improvement in various ways, but perhaps the very best is that of steaming or boiling it. It is well known that boiling greatly facilitates the mechanical divisions of nearly every kind of food, and that to this fact is attributable its superiority over the raw material. Very many of the roots used for feeding cattle, are in their natural or raw state at least partially indigestible, and consequently less valuable than when boiled as the minute particles of which they are composed are separated by the

process of boiling, and thus a larger surface is presented to the action of the juices of the stomach. It is also asserted by the best authorities that the nutritive powers of the various kinds of food are much augmented by being subjected to such high temperature, while immersed in water. Besides this, boiled or steamed food is generally better relished by cattle than that which is not. Potatoes for instance which are frequently refused in their raw or natural state, and are not in that form considered profitable food, appear to acquire new properties when boiled, and are eaten with much relish and decided advantage. The same results follow in the case of almost every other of the roots usually fed to cattle, as well as to various kinds of grain, hay, &c. As corroborative of the correctness of these views, let the farmer refer to his own every day experience in the use of cooked food, and he will find that any kind of well boiled grain, eaten warm, gains immensely in nutritive value over the same quantity when eaten without this preparation. Boiling or steaming effects the most important changes both in the chemical and mechanical qualities of food, rendering many substances palatable and nutritious, which when eaten raw are both indigestible and unwholesome. The advantage of thorough mastication are well known. It is indispensable to rapid and complete digestion, while perfect digestion may be properly regarded as the highest object sought by the farmer in feeding his stock.

It is well known that in the case of colts, there is frequently, difficulty of dentition, causing feverishness, loss of appetite and diarrhoea. When such is the case, and the gums of the animal become either inflamed or ulcerated, mastication is seriously and ruinously interfered with, digestion is of course but imperfectly performed, and the diseases above named are the result.

Boiled food would obviate this difficulty to a very great extent. The same reasoning will apply with equal cogency to animals of all ages, but especially to those considerably advanced, whose teeth have suffered from natural decay or accidental causes. For, if the food of which an animal partakes is thoroughly digested, it is more readily assimilated, and consequently, much more efficacious in promoting its health and vigor.

We have the very best authority for asserting that as a general thing, food cannot be presented to stock in any form so profitable, so easily masticated, so readily digested and equally nutritious, as when steamed or boiled. The sub-

jeet, therefore, becomes one of immense importance, and the reflecting and observant farmer cannot fail to regard it in that light.

C. T. R.

From the South Carolinian.
State Agricultural Society.

WEDNESDAY, NOV. 14.

The Society being organized, the minutes of the preceding meeting were read. The President then announced the following committee to memorialize the Legislature under the resolution of yesterday :

J F Marshall, A B Crook, J W Harrington, G McWitherspoon, T. Stobo Farrow, J D Williams, A B Springs, T E Powe, A McFarlane.

On motion of Jas S Scott, Esq., a committee of three was appointed to nominate an orator for 1856.

Col B T Watts, J A Woodward, R F Simpson.

The committee reported that they had unanimously agreed in the nomination of Gen D F Jamison, in which the Society also unanimously concurred.

On motion of J D Strother, the Executive Committee were instructed to select an orator in case Gen Jamison declined.

Maj Wm Wallace offered the following resolution, which was adopted :

Resolved, That it is the opinion of this Society that the Executive Committee should take proper measures to procure at Washington a portion of such seeds or plants as may be from time to time in the possession of any Department of the General Government, for general distribution, so as to distribute such seeds or plants among the members of this Society for experiment.

On motion, the special order of the day was taken up, and Mr Simkins was introduced to the Society, and delivered the annual address.

On motion of Mr Jas S Scott, the thanks of the Society were tendered to Mr Simkins for his very able, impressive and eloquent address, and that a committee of three be appointed to request a copy for publication. Whereupon the Chair appointed the following gentlemen to compose said committee: Gen Jas Gillam, Maj Geo Seaborn and Capt J U Adams.

On motion of Dr R W Gibbes, Peter A Browne, L L D., of Philadelphia, was requested to favor the meeting with some account of his researches on Wool, to which he kindly acceded, and was listened to with much interest by the Society.

Dr. J P Barratt introduced the following resolution, which was unanimously adopted :

Resolved, That the thanks of this body be tendered to Mr Browne, for his scientific, instructive and able lecture on Wool and Hair, and the raising of each by different breeds of sheep.

On motion, the Society adjourned, to meet again in Columbia, on the second Tuesday in November next.

A. P. CALHOUN, Chairman.

R. M. STOKES, Secretary, *pro tem*.

From the South Carolinian.

State Agricultural Society.

The members and delegates met at 10 a. m., in the City Hall. The President took the chair, and addressed the meeting in a practical, suggestive and eloquent manner on the aims, objects and probable results of the organization of the Society.

On motion, Col A G Summer was appointed Secretary.

The minutes were read.

Delegates and members were then called for, and enrolled their names from the following districts:

Abbeville—J F Marshall, Jas Gillam, S V Craine, M D., C W Sprowl, Allen Vanee, J S Parks, J Cresswell, T B Byrd, John Cowan, Jas Magill, S M Mathis, Wm Smith, J P Barratt, John Mathis.

Anderson—Geo Seaborn, R F Simpson, R A Maxwell, John Maxwell, Rev J B Adger.

Charleston—R S Porcher, J DuBose Porcher, J H Means.

Chesterfield—T E Powe, M. D., S W Evans.

Darlington—Hon J J Evans.

Edgefield—A Simpkins, P S Brooks, H Brooks, G D Mims.

Fairfield—J H Means, J N Shedd, J Bookman, H C Davis, E G Palmer, J D Strother, S R Black, J W Rabb, F Gaillard, O Woodward, W R Robertson, Theo S DuBose.

Greenville—A B Crook, M D., J R Gossett, H S Irvine.

Lancaster—Geo McC Witherspoon, Jos. A Cunningham.

Lexington—J Nunnemaker, A G Summer, J C Hope.

Laurens—John D Williams, J W Simpson, John W Metts, B T Watts, J S Williams, L J Young, R M Stokes.

Marlboro—W T Ellerbe, H W Harrington.

Newberry—J M Henderson.

Orangeburg—Jacob Stroman, A D Goodwyn, O M Dantzler.

Pickens—J C Miller, A P Calhoun.

Richland—W Wallace, R W Gibbes, J M Allen, J U Adams, Jas S Scott, W A Harris, T J Goodwyn, M D., C Bookter, E J Arthur, L. Levy, J Stark, T Davis, A F Dubard, His excellency J H Adams, John Waties, A Wallace, J H Boatwright, M D., R L Bryan, C R Bryce, J B Ewart, T R Center, M D., S C Chambers, W B Johnston, John Lever, J W Parker.

Rpartanburg—T Stobo Farrow, Jas A Anderson.

Union—A W Thomson, B H Rice, T B Jeter.
York—A B Springs, R A Springs, A E Hutchinson, J L Miller.

Winyaw and A. I. Saints' Agricultural Society—R F W Allston.

The reports of sub-committees were then called for, and several made their reports.

Col J F Marshall, from Abbeville, reported one hundred and eighty members, one of whom was a lady.

On motion, it was resolved that her name be read out—Mrs Mary Hunter—and she was elected an honorary member, in addition to her life membership.

Reports being now in order, the following

gentlemen presented them from their respective societies:

Col J F Marshall, for Abbeville.

Capt J U Adams, for Richland.

Mr R F Simpson, for the Pendleton Farmers' Society.

Mr. J C Miller, for Pickens—the Society at Walhalla.

Dr A B Crook, for the Greenville Agricultural Society.

J W Simpson, for Laurens District Agricultural Society.

Ex-Governor Means, for the South Carolina Institute.

The President presented the following letter from the City Council of Columbia:

COUNCIL CHAMBER, Nov. 13, 1855.

To the President of the

State Agricultural Society:

DEAR SIR:—In pursuance of the instructions of the City Council of Columbia, I herewith enclose to you a copy of resolutions adopted at a meeting of Council, held this morning.

I trust, sir, that the City Council, under the advice of your Executive Committee, will select such grounds and erect such buildings as will not only amply serve the purposes of your Society, but reflect credit upon the liberality of the citizens of Columbia.

With my best wishes for the success of the enterprise, in which you are engaged,

I am, dear sir, very respectfully yours, &c.

E. J. ARTHUR, Mayor.

Resolved, That the City Council of Columbia, through the Mayor, do tender to the State Agricultural Society of South Carolina the use of suitable grounds and buildings, in or near the city of Columbia, for the purpose of holding the annual fairs or other exhibitions of said Society.

Resolved, That said grounds be selected, and said buildings be erected by the City Council, under the advice of the Executive Committee of the State Agricultural Society, and that said grounds and buildings be appropriated to the use of the said Society so long as they may continue to hold their annual meetings and fairs in this city.

Col J F Marshall moved the following resolution, which was adopted:

Resolved, That we accept with gratitude the munificent offer of the City Council of Columbia, and that the Society be permanently located here.

The President presented a communication from the Rev J Bachman, on Fish Breeding, which was referred to the Executive Committee.

Mr R F Simpson moved that the words after membership, in the third clause of the Constitution, be stricken out, which was agreed to, when Gov Means moved the insertion of the following, which was carried: "And that each local society, which shall pay \$75 into the treasury, shall be entitled to three permanent delegates; or shall be entitled to two annual delegates by paying the sum of four dollars into the treasury."

Mr Palmer then offered the following resolution, which was adopted:

Resolved. That the proposition of the Fishing Creek Agricultural Society, of Chester District, to pay \$75 into the State Agricultural Society, and to send three delegates annually to said Society, be accepted and entered on our journals.

Mr Palmer submitted the following report from the Executive Committee, which was ordered to be printed, and made the subject of consideration on to-morrow:

The Executive Committee, who were appointed at the late meeting of the State Agricultural Society of South Carolina, held at Columbia, beg leave to report, that at an early date after the adjournment of the Society, they met and addressed a circular to the different District Societies, and to the citizens of the State, urging upon them the propriety of procuring life members to the State Agricultural Society, and of raising such a sum by individual subscription, and by State aid, as would place that institution upon a permanent basis, and ensure its more extended usefulness. Your Committee are gratified in being able to state, that although they have not been able to raise the sum of \$25,000 as proposed, yet they have made so near an approximation to it, in the short time allowed, that they cannot entertain a doubt that a larger amount will be raised during the ensuing year. From the imperfect returns which have as yet been made to them, it is evident that an amount of funds, at least equivalent to \$20,000, have been realized.

The citizens of Columbia, at their recent meeting, *Resolved*, "That the City Council of Columbia be requested and authorized to furnish suitable grounds and buildings for the use of the State Agricultural Society, for the purpose of holding their annual meetings"—and thus, by their zeal and liberality in the cause of agriculture, have met the just expectations of the Society, and illustrated the propriety of their city being selected as the location of our State Fairs. The aid of the Council may be fairly estimated at about \$12,000. The citizens of the city and of the district have manifested a like commendable spirit and raised the further sum of \$2,500. Among the other portions of the State that have taken a lively interest in the cause, Abbeville occupies the most prominent position, her citizens having subscribed the large amount of 4,000, which justly entitles her to be ranked as the banner district. From other districts, as far as returns have been made, the further sum of \$2,500 has been received, which make an aggregate of available means amounting to \$22,600. Your Committee have mentioned these facts for no purpose of invidious distinction. But with the hope that they may prove a wholesome stimulus to other districts, and to excite an honorable ambition to see which can do most to advance the prosperity of their State. Having said thus much in relation to individual subscription, we feel that we should have discharged our duties but imperfectly did we not advert briefly to the subject of State aid. Your Committee are fully satisfied to give that importance and extensive

usefulness to a State Agricultural Society, which our citizens have a right to expect, that our Legislature will have to subscribe a permanent sum to that institution, the annual interest of which will amount to \$3,000; and we feel assured that this body, with its characteristic liberality will meet the just expectations of the public. We would, therefore, most earnestly recommend to the members and delegates of this Society, who are here present, to increase their exertions in procuring additional members and to enlist the services of their Representatives to the Legislature in behalf of this important object.

All of which is respectfully submitted.

E. G. PALMER, Chairman.

Col J F Marshall presented the following resolution, which was agreed to:

Resolved, That a Committee of nine be appointed by the President, whose duty it shall be to memorialize the Legislature of South Carolina for aid to increase the permanent fund of the State Agricultural Society.

EVENING SESSION.

The Society met pursuant to adjournment. The President called the Society to order, and, on motion of Mr. Marshall, from Abbeville, R M Stokes was requested to act as Secretary, in consequence of the indisposition of Col Sumner.

Mr James S Scott, of Richland, offered the following amendment to the Constitution, which was unanimously adopted:

Resolved, That all funds received by this Society, either from life membership or from the State, shall be invested in stocks or bonds of the State of South Carolina, bearing not less than six per cent. interest; and, in the event of the dissolution of this Society, the fund so invested shall be returned to the original owners.

On motion of Dr R W Gibbes, Mr Peter A Brown, of Philadelphia, well known from his microscopical researches on Wool and Hair, was tendered a seat on the floor.

On motion, the Society adjourned to meet again at 11 a. m. to-morrow.

A. P. CALHOUN, President.

R. M. STOKES, Secretary.

From the South Carolinian.

Public Meeting.

In obedience to the call of his Honor the Mayor, a large and respectable audience assembled, on Monday evening, in the City Hall.

On motion of Dr. Parker, his Honor E J Arthur, the Mayor, took the chair.

On motion of James H Giles, Esq., H W Adams was requested to act as Secretary.

The following resolution, after a few brief and pertinent remarks, was then offered by Dr. Parker:

Resolved, That the City Council of Columbia be requested and authorized to furnish suitable grounds and buildings for the use of the State Agricultural Society, for the purpose of holding their annual meetings.

Col J Foster Marshall was called on, and in a short and spirited speech showed how highly important the success of such a Society was

to the interests of any community, and how vastly beneficial it would be to Columbia. He finished by imparting the gratifying intelligence that Abbeville had embarked largely and liberally in the cause of agricultural improvement.

James H Giles, Esq., Dr R W Gibbes, Sr., and other gentlemen of our city, offered a few able remarks in support of the resolution, after which it was unanimously adopted.

On motion of J M Allen, Esq., it was ordered that the proceedings of the meeting be published in the city papers.

The meeting then adjourned.

E. J. ARTHUR, Chairman.

H. W. ADAMS, Secretary.



The Farmer and Planter.

PENDLETON, S. C.

Vol. VI., No. 12, : : : December, 1855.

Col. Calhoun's Address.

We have the pleasure in our present number to lay before our readers, the excellent address of Col. A. P. CALHOUN, late President of the Pendleton Farmers Society, and we feel quite sure that we need not apologize for the space it occupies in our columns, as no other matter would better fill them. We expected some reports which much interested the Society at its late anniversary, for publication also in this number but have not yet received them. Our Secretary will furnish them for our January number. We refer our readers to the transactions.

To Correspondents.

"Piney Woods" will accept our thanks not only for his advocacy of our cause in reference to the State Agricultural Society, but for the receipt of a bag each of the "Hog Pea," to ourself and "Sandy Hill," who has been informed of the favor. To our friends generally, both *Correspondents* and *Editors* of our exchanges, who have spoken out in our behalf in matter in which we honestly think we have paramount claims we take occasion here to make our most respectful and grateful acknowledgements.

Dr. Bachman.

We have on hand a most interesting essay from the pen of this ripe scholar on the artificial breeding of Fish which we shall commence the publication of in our January number.

Broomsedge

Is too late for our present number. We regret as will our readers that the rainy day did not come sooner.

The Farmer and Planter.

This number brings to a close the 6th year of our labors and although we may not have done as much in advocating the noble cause of Agriculture and its kindred arts, as we and our friends have desired, yet we trust our labors have not been as "seed cast upon barren ground." If our friends appreciate them—we know they will continue to aid and support us not only with their pens and their purses, but with encouragement to others to follow their worthy example.—We contemplate on the first of January, commencing volume seven and respectfully ask the favor of every one to send up their *increased* lists of subscribers at as early a date as possible that we may know what number of copies to strike off. As we expect to publish the transactions of the State Agricultural Society—and have on hand many most interesting and valuable reports and essays recently read before that, and the local Society, with the continued aid of our excellent corps of contributors and the accession of new ones as we hope for. We may confidently say to our readers that volume seven will *at least*, not fall behind any one of its predecessors.

State Agricultural Society.

We had the pleasure of attending the meeting of the State Agricultural Society in Columbia on the 13th inst. Although the number of delegates, was not large, yet there was a fine spirit among the members, and we trust an impulse was given to the cause of Agriculture that will be felt throughout the State. The liberality displayed by several districts, and by the town of Columbia, in raising a fund for the future operations of the Society, together with the sanguine expectations that a very liberal appropriation will be made by the Legislature, all indicate the most flattering prospects of success. We do hope this may be the commencement of a good work, in increasing the productions, and developing the resources of our beloved State;—in arresting the tide of emigration, which has robbed us of so much wealth and population, and in bringing back our lands to their original fertility.—Their impoverished condition presents an immense barrier to success, but stern necessity will soon compel us to commence their improvement or abandon them entirely. Now is the time, if ever we hope to improve our agricultural condition, that we should set about that work. The necessity is acknowledged on all hands, the cry is coming up from every quarter to save our noble profession from the ignominy and disgrace which our ruinous and destructive practice has inflicted on it—the finest lands of the South has fallen a victim to its ruthless ravages, the example of other countries less favored in climate, soil and staples—our own impoverished condition when compared with theirs, as is strikingly exhibited between the grass, grain and cotton regions of our country, all cry aloud for improvement. Farmers and Planters of the State,

will you hearken to the call, and come up to the rescue of yourselves and of the noble calling in which you are engaged? If so, prepare some object worthy of exhibition at the State Fair to be held in Columbia next year. We hope there will be a large array of competitors to contend for the prizes that will be offered by the State Society. Let there be a general exhibition of the taste, skill and industry of the State—above all, let there be an exhibition of increased interest and devotion, of new energy and zeal in the cause. The present is eminently an age of progress. Let us not play laggards when the whole civilized world are marching rapidly in improvement. The invention in arts, the discoveries in science, the progress in education and intelligence, and the influence of the press, are all shedding "a light to our feet and a lamp to our pathway," and yet agriculturists as a class are slow in availing themselves of this general diffusion of knowledge and march of intelligence. Ours had been a retrograde instead of an onward movement. It is high time we should retrace our downward course.—The present organization of a State Society has been carried into effect to bring about this praise-worthy object. The members who originated and carried out the noble enterprise were not actuated by selfish or ambitious considerations, but by an ardent desire to improve the agriculture and increase the prosperity of our beloved State.

The proceedings of the late meeting were mainly preparatory to future action and operation. The principal business for their consideration was to raise and invest the funds of the society. The sources of revenue will be subscriptions of life membership—donations from the town of Columbia and an appropriation by the Legislature. The Executive Committee reported that upwards of twenty-one thousand dollars had been subscribed by life members;—the district of Abbeville taking largely the lead and justly entitled to the *Banner* district. Richland District was next on the list. All the other districts made apologies for not raising more. We were sorry to see the City of Charleston with her population of 40 thousand inhabitants and largely interested in agricultural improvement returning only a very few life members. We hope she will do better and recollect that all her prosperity depends on the success of the *farmer and planter*.—We hope that every district in the State will be induced to make renewed and increased efforts, and that this noble enterprise will be crowned with complete success.

The town of Columbia acquitted herself handsomely by an ordinance to purchase a lot and erect suitable buildings for holding an Annual Fair. This munificent donation will place the society on a permanent basis, so far as regards its location. The value of their subscription it is supposed, will amount to 10 or 12 thousand dollars.

In connection with the same subject, a committee was appointed to memorialize the Legislature, either for an annual appropriation or to issue Bonds, the interest only to be given to the Society. The friends of the Society were sanguine of success in this ap

plication. Indeed we do not see how an application of this kind, coming from the tax payers of the State, can be refused when millions have been contributed for less worthy objects. We were informed the Governor will recommend the measure in his message.—We were most gratified to see his Excellency at the meeting and participate in its deliberations. We were also much pleased to see both of our Senators, and one or two of our Representatives in congress, join in the meeting. It is a good indication that our highest public servants are not indifferent to the agricultural interest.

In order to secure the funds of the Society and to place them beyond contingencies, a resolution was passed to invest them in State Bonds or Stocks, the interest on which only was to be used, and in case the Society should disband, the money should be returned to the original subscribers. This measure will insure confidence in the project and will make a certain amount available to meet the expenses of the Society and in awarding premiums. Arrangements will be made by the Executive Committee at an early day after the Session of the Legislature to prepare and publish a premium list, comprising all the leading and important subjects commenced with agriculture, rural and domestic economy—the mechanic arts, horticulture &c. These various articles of competition will be ordered up for exhibition in the Town of Columbia at the Annual Fair in November next, where suitable lots and buildings will be prepared for their exhibition. We hope to live to see that day. It will be a proud day for South Carolina, the connected we trust of a new order of things, and a bright harbinger of the future.

We must not omit to mention the brilliant address delivered by COL. ARTHUR SIMPKINS, of Edgetfield. It was a fine effort of genius, of warm and impressioned eloquence, and was received with most enthusiastic applause. We never heard an address more highly complimented. It richly merited all the praise bestowed on it. We are happy to state it will be published. We shall take great pleasure to give extracts of its most beautiful and interesting passages to our readers.

Proceedings of the Pendleton Farmers's Society at its Fortieth Anniversary.

FARMERS' HALL, PENDLETON, }
Oct. 11th, 1855. }

The "Pendleton Farmers' Society met this day, and was called to order by the President.

The Secretary being absent, on motion, Elam Sharpe was requested to act in his stead, and accordingly read the minutes of the previous meeting.

A resolution was then offered by R. A. Maxwell, that hereafter the Annual Address shall be delivered on Friday after the Anniversary, at 12 o'clock, and that the Secretary be required to publish a notice to that effect, with the name of the Speaker, in the "Farmer and Planter," Anderson and Pickens papers, and also in two or more public places in Pendleton Village, at least one month previous to, and until

the day of the meeting.

It being in order for the proposition of members. Carver Randall, on motion of A F Lewis, and E T Shubrick and H E Ravine, on motion of Col Hayne, were elected members of the Society.

Dr J B Adger having been appointed Chairman of the Committee to report on the cultivation of "The Grasses," then read a very comprehensive and highly valuable essay, setting forth clearly and distinctly their peculiar adaptation to the husbandry of the upper portion of our State, and also the strong claims for introduction upon our denuded soils, which they exercise upon the mind and heart of every enlightened farmer.

On motion of R. A. Maxwell, it was resolved, That the thanks of the Society be extended to Dr. Adger, and that a copy of his report be requested for publication.

The Society next proceeded to an election of officers for the ensuing year. After counting the votes, the following gentlemen were declared elected:

Maj. R. F. SIMPSON, Pres't.

COL. W. A. HAYNE, V. Pres't.

JAMES T. LATTI, Sec'y and Tres.

MAJ. SEABORN, Cor. Sec'y and Tres.

On motion, the Society then adjourned to meet on the day following at 10 o'clock.

FRIDAY, October 12, 1855.

The Society met at 10 o'clock, according to adjournment—the President in the Chair.

On motion of Maj. Seaborn, the rules were suspended, when he introduced the following resolution: That the 7th article of the Constitution be altered to read as follows—"The stated meetings of the Society shall be held on the first Thursday in January, May, August and November. On a subsequent motion, said resolution was postponed until the regular meeting in January.

On motion of Maj. Wright, it was

Resolved, That any individual, not a member of the Society, ladies excepted, shall refund 25 per cent. of any premium awarded, for the benefit of the Society.

Mr. Crawford being one of the Committee designated to prepare a treatise on the adaptation of cotton to our soil and climate, and particularly as to what extent it can be profitably combined with the cereal crops, next read before the Society a very interesting and able paper upon this topic.

Maj. Wright moved that the thanks of the Society be returned to Mr. Crawford, and that a copy of his report be requested for publication.

The hour of 12 having arrived, the Society adjourned to a neighboring grove to listen to the delivery of the Annual Address by Col. A P. Calhoun.

Quite a respectable audience had already assembled, composed of the most intelligent and refined portion of the community; the ladies evincing by their numerous presence a deep interest in the anticipated repast.

The Speaker amply repaid the expectation of his hearers, holding them in earnest attention, somewhat more than an hour. The principles

of a Southern economy were ably discussed, from which important and practical truths were deduced, immediately applicable to the present condition and prospects of agriculture, which Science, together with her fair sister, Horticulture, gracefully blended, constituted the nucleus of the discourse. The picture drawn was a pleasing one, and highly instructive; the dark shadows of the background standing out in striking contrast with the brilliant light that illuminated the view in the foreground. The Address has been published, and will, doubtless, find its way to every fireside in our State where Southern pride and ambition hold their sway.

The next subject that claims our notice, is, the Agricultural Fair; and as we are expected to say something, we would be heartily glad to say more in its favor. The quality, certainly, was better than the quantity, and plainly established an absolute certainty of success in the various departments of the wide field of agriculture, if her sons were only true to their calling and our interests.

Whilst some praise is due to many farmers in our section of country for the care and attention bestowed upon stock, for the judicious selection of implements, as shown by the recent exhibition, and for a disposition to avail themselves of the popular fertilizers of the day, with a view to the restoration of unproductive lands; and while there is much encouragement from the fact that the ball has commenced to move, still it is to be remembered that it is massive in its proportions, and to move onward, steadily and surely, will require a concert of force, which can only be exerted by the united efforts of every tiller of the soil.

At 3 o'clock the Society met and came to order. Dr. Adger gave utterance to an expression of very favorable sentiments concerning the Address, and on his motion, it was

Resolved, That the thanks of the Society be presented to Col. Calhoun for his very able, eloquent, beautiful and instructive Address, this day delivered, and that he be requested to furnish our Secretary with a copy for publication in the "Farmer and Planter," and "Charleston Mercury."

The Committee on Premiums, next made their reports as follows:

For best Mare, Col. A. P. Calhoun,	\$5 00
" " Horse Colt, Wm. Boggs,	2 00
" " Jack, John Maxwell,	5 00
" " Mule, ——— Felton,	3 00
" " Mule Colt, Dan'l Mills,	2 00
" " Bull, Improved Breed, Dr Adger,	5 00
" " Cow, Native Breed, S. R. Maxwell,	5 00
" " Improved Heifer, J. T. Latta,	2 00
" " Calf, Native, Col. Hayne,	1 00
" " Ram, Spanish Merino, J T Latta,	3 00
" " Boar, Improved Breed, Dr. Jenkins,	3 00
For best Sow, Improved Breed, Dr. Jenkins,	3 00
For best Yoke of Oxen, Col. Hayne,	5 00
" " Cross Improved Poultry, Dr. Jenkins,	2 00
For best Little Improved Pigs, J. T. Latta,	2 00
" Largest Collection of Implements J. T. Latta,	5 00

For largest Collection of Plows, Major Seaborn,	2 00
Best Turning Plow, J Hunter, Ag'l work,	
" Wheat Screen, (Montgomery's) Maj. Seaborn,	2 00
Best Bedstead, Homemade, W. Knauff,	1 00
" Selection pure Hominy Corn, Dr Adger,	50
For an elegant display of fine butter; Mrs. Dr. Adger,	50
For an excellent homemade Carpet, Mrs. Lorton,	1 00
For a fine Quilt, Mrs. Harriet Hunt,	1 00
" " " Mrs. Berry,	1 00
" Pair of Gloves, (Buckskin) Mrs. Wm. Cox,	50
" " Socks, Mrs. Clayton,	50

On motion, it was

Resolved, That the President deliver the next Annual Address; and the business of the day being despatched, the Society adjourned until the regular meeting in January.

JAMES T. LATTA, Secretary.

For the Farmer and Planter.

Communication from Piney Woods.

MAJ. SEABORN—*Dear Sir*:—From an editorial in that ably conducted journal, the "Carolinian," of Columbia, S. C., the Editor, in speaking of the State Agricultural Society publishing an agricultural paper, very properly ask, "Why not the Farmer and Planter answer all the purposes of the Society?" &c. I ask why not? Have you not men strong enough in Old Pendleton to handle your press—have you not, for several years past, kept your child (the Farmer and Planter) alive on air, and when the death horrors were about to take place, have you not administered wine out of your own pockets; and now, when the boy from hard living, begins to gather strength, his face begins to look manly, his beard just beginning to show, I ask, would the Society, after considering the matter well, hurt that boy by one stronger? I hope not; it might be well for them to desist, but let the worst come, I hope and believe the subscribers of the Farmer and Planter will hold on to their paper with a fondness that nothing but death will part them.

According to a promise made you some time ago, I send you some of my Hog Peas, and through you, some to "Sandy Hill." I should like for him next fall to show them to "Broomsedge"—he will hardly say "lumbng."

If I had more to spare, I would like to let any of our friends have enough to get in seed, and will do so another year if they wish. They are good bearers, will ripen by the first of August, the time your hogs are in much need of help.

They do best planted by themselves, in rows, cotton width, and ten inches apart; by August the ground will be covered with the vines and peas, you can then turn your hogs, half dead with mange, in your field. By the time your corn is gathered, your hogs will do; you can then put them in the fields, and run there for some time, and then in the pinders. Pinders intended for hogs, should be planted in a field long and narrow, that you may easily cut it off into small portions to your hogs, otherwise there will be great waste.

"River Swamp" makes the enquiry, is it not cheap-

er to buy than raise your pork? If he gets 8 cents for cotton, and give 16 cents for bacon, and of course buy lard, and, worse than all, be deprived of the jolly times of eating backbone and nice spareribs and sansages, I think he will agree with me, raise all you can. I should like for him to see my *pigs* at this time. The peas you shall have. I fully agree with "Sandy Hill" as to the management of bears. They should be kept up; you can then have pigs at any time you may wish. I prefer pigs, say the first of Oct., they will have the run of the fields, which will help both sow and pigs very much. Spring or summer pigs, unless fed high, will hardly do well, at least that is the experience of

PINEY WOODS.

From the American Cotton Planter.

Grass and Sheep.

DR. CLOUD—Dear Sir: Allow me to thank you for coming to of one of our most abused and neglected natives, in your October number—one old friend who sticketh closer than a brother, "crab grass." There is no better hay and few better pasture grasses, if you will only take a little pains to put him down. Any lot made rich will yield a good crop of wheat, barley or oats, and if stock are kept off, yield in autumn from one or two tons of delicious hay, which can be easily cured in twenty-four hours or under shelter if it should be rainy.

Some of your contributors are out on sheep. It is high time the attention of planters should be directed to this department of husbandry. Mr. Cockrell has demonstrated that the South is the region for fine wool, and Col. Hampton can satisfy the most sceptical that the world can't produce more delicious mutton. But, bow! wow! wow! what's to be done with him—every "nigger" must have his "possum dog," and every poor man with as many children as John Rogers, of prime notariety, had, must have at least five, counting in the "fiste." "Love me—love my dog," may be a very christian precept, but if "my dog" loves mutton, I can't subscribe to the doctrine. There is nothing about which a man is more sensitive than his dogship. You may call him hard barked, a scamp, speculator, hypocrit or scoundel with impunity, but just say that his dog has been killing your sheep, and you may just make up your mind that you have made an enemy for—one who will always be snapping at your heels.

We knew a village wherein perfect harmony had existed for years, till a big dog fight set every man, woman and child in it by the ears for life. The dogs are dead that began it, but the people are still wooling one another like the famous Kilkenny cats, "*conunore*." But the dogs

must be decimated—and now, when corn is scarce, flour high, and pork rising it's a pretty time to begin. No man's mutton is safe—he may pen every night; well, in the end, that will kill his sheep, for a sheep must be shifted. He may enclose in pastures—still he knows not when Growler or Otho may make a dash at his flock, and cut-throat a dozen in as many minutes, and be off to parts unknown—(a dog always in a sheep case can make out an "aliby.") Sheep confined to the same grazing ground long, will become diseased and die off. They are pretty heavy, as well as choice feeders, and soon exhaust the stock of food they like best—then they must either suffer, or eat what disagrees with them. Woods pastures are very important to sheep, and they should always be turned into the woods after shearing. The sun is very severe upon them after being fleeced, and being forced to graze at night, the dews will be equally hurtful. Sheep should be changed about a good deal—never turned upon very luxuriant pastures, salted regularly. (salt and ashes, or soot) when they have scours, always be looked after—for the master's eye is his best physic. Cotton seed is good food if fed cautiously; turnips are good, but not safe for ewes with lamb. Never allow an old sheep a diseased or a shabby one, to remain in your flock a moment, and change your buck every two or three years, and above all things, never over-stock your pastures, or allow cuckle burrs to grow upon them.

N. B.—Shoot every dog that prowls about your grounds—any dog that will not stay at home is a nuisance, and the greatest kindness you can do his master or the neighborhood, is to give him a dose of blue pills.

"VIVE LA MOUTON."

From the Baltimore Sun.

Ultimate Benefits of Drought.

LABORATORY OF STATE CHEMIST.

No. 29 Exchange Building.

It may be a consolation to those who have felt the influence of the late long and protracted dry weather, to know that droughts are one of the natural causes to restore the constituents of crops and renovate cultivated soils. The diminution of the mineral matter of cultivated soils takes place from two causes.

1st. The quantity of mineral matter carried off in crops and not returned to the soil in manure

2d. The mineral matter carried off by rain water to the sea by means of fresh water streams.

These two causes, always in operation, and counteracted by nothing, would in time render the earth a barren waste, in which no verdure would quicken, and no solitary plant take root. A rational system of agriculture would obviate

the first cause of sterility, by always restoring to the soil an equivalent for that which is taken off by the crops; but as this is not done in all cases, Providence has provided a way of its own to counteract the thriftlessness of man, by instituting droughts at proper periods to bring up from the deep parts of the earth food on which plants might feed when rains should again fall. The manner in which droughts exercise their beneficial influence is as follows;

During dry weather a continual evaporation of water takes place from the surface of the earth which is not supplied by any from the clouds. The evaporation from the surface creates a vacuum (so far as water is concerned) which is at once filled by water raising up from the sub-soil of the land; the water from the sub-soil is replaced from the next strata below, and in this manner the circulation of water in the earth is the reverse to that which takes place in wet weather. This progress to the surface of the water in the earth manifests itself strikingly in the drying up of springs, and of rivers and streams which are supported by springs. It is not, however, only the water which is brought to the surface to the earth, but also all that which the water holds in solution. These substances are salts of lime, and magnesia of potash and soda, and indeed whatever the sub-soil or deep strata of the earth may contain. The water, in reaching the surface of the soil, is evaporated, and leaves behind the mineral salts, which I will here enumerate viz; Lime, as air-slacked lime; magnesia, as air-slacked magnesia; phosphate of lime, or plaster of Paris; carbonate of potash, and soda with silicate of potash and soda, and also chloride of sodium or common salt.—All indispensable to the growth and production of plants which are used for food. Pure rain water as it falls would dissolve but a very small proportion of some of these substances; but when it becomes soaked into the earth, it there becomes strongly imbued with carbonic acid, from the decomposition of vegetable matter in the soil, and thus acquires the property of readily dissolving minerals on which before it could have very little influence.

I was first led to the consideration of the above subjects by finding on the re-examination of a soil which I analyzed three or four years ago, a larger quantity of a particular mineral substance than I at first found, as none had been applied in the meantime. The thing was difficult of explanation until I remembered the late long and protracted drought. I then also remembered that in Zactecas and several other provinces in South America, soda was obtained from the bottom of ponds, which were dried in the dry, and again filled up in the rainy season. As the above explanative depended on the principles of natural philosophy, I at once instituted several experiments to prove its truth.

Into a glass cylinder was placed a small quantity of chloride of barium, in solution; this was then filled with a dry soil, and for a long time exposed to the direct rays of the sun on the surface. The soil on the surface of the cylinder was now treated with sulphuric acid,

and gave a copious precipitate of sulphate of baryta.

The experiment was varied by substituting chloride of lime, sulphate of soda, and carbonate of potash, for the chloride of barium, and on the proper re-agents being applied in every instance, the presence of those substances were detected in large quantities on the surface of the soil in the cylinder. Here, then, was proof positive and direct, by plain experiments if chemistry and natural philosophy, of the agency the ultimate, beneficial agency of drought.

We see, therefore, in this, that even those things which we look upon as evils, by Providence, are blessings in disguise, and that we should not murmur even when dry seasons afflict us, for they too are for our good. The early and the latter rain may produce at once abundant crops, but dry weather is also a beneficial dispensation of Providence in bringing to the surface food for future crops, which otherwise would be forever useless. Seasonable weather is good for the present, but droughts renew the storehouse of plants in the soil, and furnish an abundant supply of nutriment for future crops.

JAMES HIGGINS,
State Agricultural Chemist.

Cure for Bloody Flux.—MR. EDITOR:—In the months of January and February past, that most dangerous and loathsome disease made its appearance upon my plantation. I had, after a short time hardly enough well to take care of the sick; I had the physicians of the country to attend them, and without any good effect; they candidly told me no more could be done; I daily and hourly expected some four or five of them would die. I heard of this remedy, sent for a new Doctor and under its treatment and his direction, every one recovered viz, A does of Ipecac to vomit well; a does of Castor oil afterward. Then for an adult, take one *tablespoonful* of Epsom or *glauber salts*, dissolved in two-thirds tea cup of warm water, then add one *tablespoonful* of Paregoric or its equivalent in Ladanum. Take a *tablespoonful* of the mixture every two hours; and continue it until the bloody passage cease. In bad cases, have a physician. It is as near a *specific* (with good nursing) as we ever hear of.—*Soil of the South.*

Cheap Soap.—A correspondent of the *Southern Banner* gives the following recipe for soap making, and adds that it would be worth one thousand dollars in the hands of a selfish person, and the world would have to untie the purse-string to get it, but here it is free gratis:

Take six pounds of Potash.....	75
Four pounds of Lard.....	50
One-fourth pound of Rosin.....	25

All amounting.....\$1 50

Beat up the rosin, mix all together well, and set aside for five days, then put the whole into a ten gallon cask of warm water and stir twice a day for ten days, at the expiration of which time, or sooner, you will have one hundred pounds of excellent soap for \$1 50.

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